HIMACHAL PRADESH UNIVERSITY, SHIMLA

RFP NOTICE No.HPU/cc/102

As prepared after analysis of the Proposals received in response to the Request for Expression of Interest (EOI) of the University in Feb 2015

Request for Proposal

Supply, Installation, Implementation, Integration, Configuration, Commissioning and Maintenance of the

Web Enabled University Management System.

DISCLAIMER

The information contained in this Request for Proposal ("RFP") document or subsequently provided information to bidders, whether verbally or in documentary form by or on behalf of the Himachal Pradesh University, Shimla (HPU) or any of their employees, consultants or advisers, is provided to bidders on the terms and conditions set out in this RFP document and any other terms and conditions subject to which such information is provided.

This RFP document is not an agreement and is not an offer or invitation by HPU to any other Party. The purpose of this RFP document is to provide the interested parties with information to assist in formulation of their Proposal. This RFP document does not purport to contain all the information each bidder may require. This RFP document may not be appropriate for all persons or entities, and it is not possible HPU, their employees, consultants or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP document. Certain bidder may have a better knowledge of the proposed Project than others. Each bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this RFP document and obtain independent advice from appropriate sources. HPU, its representatives, their employees, consultants and advisors make no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the RFP document.

HPU may in their absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this RFP document.

Some of the activities listed to be carried out by HPU as a part of the tendering process or the subsequent implementation are indicative only. HPU has the right to continue with these activities, modify the sequence of activities, add new activities or remove some of the activities, in the best interests of HPU.

CONTENTS

RFP NOTIFICATION

Himachal Pradesh University
Shimla – 171005
Himachal Pradesh, India
www.hpuniv.nic.in

Himachal Pradesh University, Shimla, 171005 Himachal Pradesh, hereby invites sealed Proposals from the Firms who participated in the Request for Expression of Interest for **Web Enabled University Management System**.

The Proposals should be submitted according to two cover System consisting of Technical Bid and Commercial Bid. The Request for Proposal Document may be downloaded from the university website. The last date of submission of Bids scheduled at 13:00 hrs on Monday, Oct. 05, 2015.

The Project Coordinator
Computer Centre
Himachal Pradesh University, Shimla

KEY ACTIVITIES AND DATES

S.No.	Key Activities	Date
1	Issue of Request For Proposal (RFP) (Cost of RFP is Rs.10,000)	07-09-2015
2	Last Date for Submission of Written Questions by bidders	14-09-2015
3	HPU Response to bidder Questions latest by	21-09-2015
4	Last Date / Time for submission of bids	05-10-2015
5	Technical Bid opening Date/Time	07-10-2015
6	Technical Bid Evaluation	13-10-2015
7	Commercial Bid Opening of Technically qualified bids	16-10-2015

1

Introduction

The Himachal Pradesh University, a leading teaching and research institution in the state of Himachal Pradesh, was established in the year 1970. It is one of the leading affiliating-cum-residential universities in the country. The picturesque campus spreads across an area of over 200 acres with majestic buildings, rhododendron, silver oak, pine and deodar trees which offer a salubrious climate and congenial atmosphere for higher studies and research. Being far from the main city, the campus has a unique calmness with serene atmosphere, surcharged with pious ethos. Situated at Summer Hill, a Suburb of Shimla, the University aims at developing students into knowledgeable individuals and worthy citizens with sound character.

The prime objective of the University is to disseminate advanced knowledge, wisdom and understanding through teaching, learning and research. For achieving its goals the University intends to promote advanced learning through research, training and extension programmes. Consequently The University is seeking an ERP solution hereinafter referred to as “the application” to address its requirements in the area of Academic, Administration and Examination Management. It is expected that after the implementation of the solution, the University will be able to conduct all academic, administration and examination functions and procedures online. The solution is to be extended, at a later date in a seamless and integrated manner, to take care of the entire academic and all their administrative functions, procedures and requirements of the University.

The University had invited Expression of Interest [EOI] from reputed Bidders as per the specified eligibility criterion in the month of February 2015 and different firms participated in response to this EOI. This RFP is the base document for inviting sealed bids from well-reputed IT companies which had participated in the EOI and further in technical presentation held in the university during April 7th - 9th, 2015. The following Companies participated in the presentation

MGRM Net Limited, New Delhi

L&T Infotech Ltd. Mumbai

JIL Information Technology, NOIDA

QVenture Pvt. Ltd., Hyderabad

TCIL, New Delhi

Sysnet Global Tech. Ltd., Delhi

TCS, Mumbai

Infinite Computer Solution, Whitefield, Bangalore

SRIT & I Web, Bangalore

We Excel Software, Chandigarh & Silver touch, Ahmedabad

The components of the task for automating the operations of the University are varied in nature, though interdependent. As the prospective vendors of individual component may or may not specialize in all of these components this Request for Proposal is suitably split into sub components. The motive in doing so is that of reduction of the overall cost of ownership to the university as well as to procure the best goods and services as may be available.

It is also felt that the University should not get tied down to a particular technology or vendor now or in future for further up gradation as well as expansion. Pertinent to this is the fact that all the equipment and components must conform to open global standards and universal protocols. Consequently, interoperability of heterogeneous components across vendor, make or model shall have to be meticulously ensured. The investment the University is intending to make vide this Request for Proposal needs to be protected and it is expected that the vendors should undertake to supply spares as well as to ensure up gradation / expansion for a reasonable period in future. In order to ascertain this, the vendors must be willing to sign maintenance contract if awarded directly or through third parties.

General Requirements

The intent of H.P. University is to translate the existing student's academic related business processes and Examination System procedures through fit/gap analysis to conform to the standard processes delivered with the solution. The solution should be state-of-art technology to improve the delivery of services through workflow and web-enabled access.

The solution should:

Be fully web-enabled Portal for University
Be web-enabled Portal for Affiliated Colleges
Be capable of supporting decentralized as well as centralized processing,
Provide user oriented self-service capabilities
Have a robust set of communication and reporting tools,
Utilize modern workflow capabilities in streamlining interactions among functional processes
Provide application development tools to support the continuous development/refinement of applications.

Target users

The proposed solution must be able to support a spectrum of users, namely the following with a personalized access:

Administrative offices
Departmental administration
Examination System
End-users (students, faculty, and staff)
Affiliated Colleges Management

Customizability

To minimize the need/impact of customization, the proposed system should, wherever appropriate, support
Flexible customization capabilities
Flexible data structures with user-definable fields

Callable functions to access data/functions with application conforming to industry standards
Ability to extend/change existing pages without much impact on the application
Ability to add/modify the existing workflows

Project Objectives and Expected Benefits

The objectives of the implementation of Enterprise Resource Planning Solutions are to computerize the various activities being carried out in the Himachal Pradesh University with a view to improve the service delivery model, internal office efficiencies as well as management facilitation to better control the working of the HPU. Besides, a better student interface by making various services of the University online is also intended.

The following objectives have been defined for the automation of various processes:

Process Optimization: Increasing overall effectiveness and efficiency by removing various redundancies, bottle-necks and deterrents related to the process under consideration by effective implementation of the various Information and Communication Technology tools.

IT Enabled Student Support Services: Facilitating the existing and prospective students for availing various information and services through viable and optimized interfaces.

Resource Optimization: Reducing the operating and maintenance costs involved with various examination works and procedures by incorporating efficiency-oriented mechanisms.

Stakeholders for the project: The various stakeholders of the project who would be affected by the automation exercise for preparation of HPU System are the employees of Himachal Pradesh University, Affiliated Colleges and Students.

Various modules as explained in this document need to be developed to help the HPU to perform its activities. These have been suggested for automation of critical activities of different branches.

The implementation of ERP solutions would help the HPU to make usage of latest automation techniques for optimal utilisation of resources, effective and efficient management of students, teachers and affiliated college's database. The centralised database management system of all the stakeholders and resources on a single platform would also help the HPU to improve the overall efficiency and accuracy in examination system in addition to its related components such as students support services, decision making processes and cost effective utilisation of funds. Using ERP solutions, there would be integration of all supporting wings of HPU needed to provide students support services to improve the overall working process of entire system. This would also enable the top level management to visualize real time trends and take strategic decisions.

Himachal Pradesh University has envisioned that the successful implementation of the system will provide the following benefits:

Overall Benefits

Increase the efficiency and productivity of the university with better monitoring and transparency.
Develop interfaces of the branches with other branches to facilitate seamless sharing of information for better administration and governance and eliminate redundant processes and works.

Provide timely & reliable management information relating to management of resources for decision makers for effective strategic, and day to day planning.

Better planning and control and data analysis for simulation.

Provide interface with other key stakeholders like University Grants Commission, affiliated Colleges, Ministry of HRD, State Government, Colleges, etc.

Effective Planning and Analysis Based on the Factual Data and Trends

Data management, a salient feature of the proposed ERP solution, will ensure that data corresponding to various functional areas (Student details, Examination Details, etc) are constantly updated, thereby providing timely, accurate, reliable and updated information on various functions for effective management, planning and control.

Performance Monitoring

The proposed ERP solution will enable monitoring of various activities of HPU based on the information collected. This solution will provide automatic validation checks that generate alerts for abnormal conditions. This will enable effective monitoring and better control by providing quick means of detecting any unacceptable variations or deviations early enough for corrective maintenance.

Increased Productivity

Automation of day to day functioning will facilitate to enhance the productivity of personnel; hence the personnel would be able to handle larger volume of work.

Reduced Documentation

The data-sharing feature in the proposed e-Governance solution will enable a significant reduction in manual documentation and time involved in sharing of bulky case files.

Enhanced Transparency

Total computerization will result in better transparency, online monitoring and control of activities, as majority of the tasks will be digitised hence retrieval and verification of the data is faster than legacy and scattered system.

Enhanced Communication

Establishment of network across the HPU will enhance communication and decision making in HPU. The solution will lead to improved workflow.

The other benefits of HPU solution will be lesser process time, lesser establishment, costs saving, etc. Reduction in time during manual data retrieval and transfer would result in greater employee satisfaction and higher manpower productivity. All these benefits would also enable HPU to perform its major role of serving the Students and Colleges in the state of Himachal Pradesh.

Requirements to Be Met by the System

The generalized requirements for the new systems to be implemented, but not limited to, can be summarized as follows:

The application system should primarily work in centralized architecture. However, essential data should be replicated at the central server to avoid global disaster or breakdown of services.
The application should provide a Data Archival utility as a part of the standard offering and Facilitate the query and reporting on archived data.

The application should record changes in data in every field with user ID and time stamp, with ability to record reasons in some cases and enable which fields or tables are to be audited through a delivered tool.

The system should allow interactive modes depending on the type of modules. The application design and construction should take into account the network infrastructure availability within the university campus and state-wide.

During the design of database for new system there is a need to take care of existing databases (automated or manual) and the same have to be migrated / incorporated in the new one.

Ensuring quality in all the activities carried out during the development/ customization, installation and procurement of hardware, documentation, testing, implementation, maintenance etc. of the system. This can be ensured by continuous generation of quality monitoring reports e.g. defect density, effort and schedule slippage etc.

Taking care of the configuration management i.e. version control of all the deliverables, where applicable by proper maintenance of related repositories.

The university documents are in English therefore the application system MUST cater to the English language requirements of University as per existing policies and procedures. The fields of application system can be bilingual (both English and Hindi) depending upon the design of the application system.

Portal should have the flexibility to provide interfaces for other stakeholders like affiliated colleges, students, evaluation centres, evaluators, etc.

System should also support the integration of digital signatures and bio metric devices HPU and its stakeholders to provide integrity, authenticity and confidentiality of data during online/offline transmission.

System should meet the following quality parameters such as: 1) usability- easy to use, 2) flexibility- easy to add new modules, 3) maintainability- further enhancement, adaptability of new rules and regulations in the form of business rules, etc. and 4) portability- easy transfer from one platform to another. System should provide interface with external systems, either through import/export facilities or batch programs.

System should support for callable functions to access internal data or invoke internal functions should also be available, via services that conform to industry standards. System should support for bio-metric, Internet Banking and/or smart card based inputs.

2
Functional Requirements

Academic Management Systems

Academic Management system implemented at HPU should be fully web-enabled, support multiple languages and currencies, have a robust set of communication tools (i.e., support for portals, targeted email, personalized correspondence, etc) and be able to support the flexible, decentralized administration of all student related core processes during the entire student lifecycle from admissions to alumni.

Essentially, the Academic Management system must have built-in flexibility to cope with changes that inevitably arise during the normal course of time. The application should be upgradeable allowing the inclusion of new functions and newly emerging technologies in future.
The academic system will consist of a set of functional units. Each functional unit corresponds to a set of related functions (such groups of functions have been referred to as “details” in the following table).

This RFP intends to bring out all the details with respect to solution and other requirements that HPU deems necessary. The information set out in this volume has been broadly categorized as Technical and Functional covering multiple aspects of the users’ requirement.

The following are the outstanding features of HPU:

Awarded Centre with Potential for Excellence in Himalayan Studies by UGC
University Science Instrumentation Centre
Special assistance to departments of Physics, Bio-Technology, Chemistry,Bio-Sciences, History and Mathematics
18 Multidisiplinary specialized centers
Pioneered Distance learning education
Developed scientific research at the doctoral level relevant to the local and national needs
Association with national and international research and academic institutions
Internal Quality Assurance Mechanisms
Training and Placement Cell
Research and extension work to ensure social justice and empowerment of under-privileged sections
Creditable and fair system of examinations
Integral education with equal emphasis on curricular and co-curricular activities
Free education to girl students
Intellectual and competent faculty
Favourable teacher pupil ratio for closer rapport
Pioneered in Self-Financing Scheme
Alumni excelling in all spheres
Substantial number of students qualifying NET, GATE and other competitive examinations
National level achievements in NCC, NSS, youth welfare programmes
Admirable performance in sports and cultural activities

INFRASTRUCTURE AND LEARNING RESOURCES

Three administrative blocks, more than twelve multi-storeyed buildings for housing teaching departments
Twenty-nine teaching departments and 18 specialized teaching and research centres
236 permanent teachers, 1016 permanent non-teaching employees and more than 6200 students studying in different teaching departments of the university
Academic Staff College
International Centre for Distance Education and Open Learning
Computer Centre, a Cyber Café and five computer laboratories
Individual computers to all teachers
Optical fibre network
Employment Information and Guidance Bureau
Library with a repository of more than 1,94,739 books and 379 periodicals (national and international)
Well-equipped laboratories in science departments
Fourteen hostels, including exclusive hostels for women & tribal students
Multi-storeyed Students Centre
University Faculty House
Auditorium and Seminar Halls
Play ground
Residential accommodation for teaching and non-teaching staff
University Health Centre
Cafeteria
Transport facilities with own fleet of buses
Post office and a branch of State bank of India with ATM Facility

EXISTING RESEARCH AREAS

In terms of quality teaching at postgraduate level, the university is on a sound footing and has ample potential for excellence. Besides running various academic programmes, the university has been carrying out research in varied fields. The University is concentrating on development of trained manpower, undertaking research and development activities related to development of the state and promoting interaction with government and private sector.

The university addresses seminal issues related to state's economy and its resources taking into account its demography, geography, areas-specific developmental perspectives, eco-development, handicrafts, cottage and small scale industries, horticulture, agriculture, land revenue, cooperatives, rural development, hydro-electric power, trade and commerce and socio-biology. The various departments of university have been carrying out focused research on areas as varied as:

Physical Sciences: Computational physics, Nuclear physics, Condensed matter physics, Hydro-dynamic and hydro-magnetic stability, Plasma physics, Fuzzy algebra, Fluids motion of non-Newtonian fluids, Industrial, polymer and analytical chemistry, Nano-materials, Synthetic inorganic chemistry, Coordination chemistry, Analytical chemistry, Biomaterials and drug delivery, colloidal and solution chemistry.

Life Sciences: Ethno-biology, Wood-sciences, Environment, Mycology, Plant pathology, Microbiology and biotechnology, Plant physiology, Bioinformatics, Biodiversity, Entomology, Parasitology, Cyto-genetics, Bio-prospecting, Sustainable utilization of plant resources, Microbial diversity, Enzyme and Fermentation technology.

Computer Science: Technical skill development, pace with the emerging trends in the computer science and technology and to produce computer professionals who can face the challenges of IT Industry.

Humanities and Social Sciences: Himalayan Studies, Tribal welfare and development, Economics, Sociology, Geography, Hill Development, Cartography, Human Geography, GIS and Remote Sensing, Psychology, History, Cultural and Environmental History, Gender Studies, Oral History, Intercultural Studies, Performing Arts, Visual Arts, Cultural Studies, Journalism, Demography and Population Studies, Literature: Hindi, English, Sanskrit, British, American, Canadian, African, Australian, linguistics, folk literature and Foreign Languages.

Law, Management and Commerce: Legal studies, Trade and Commerce, Export Marketing, Banking, Social Work, Political Thought, Politics and International relations and Tourism and hospitality.

The Core Modules required in University ERP System: -

(I) The Core Modules required in University ERP System: -

The whole Project is divided into four Phases as Phase I, Phase II, Phase III and Phase IV and is being undertaken as per priority and financial constraints. **The phase wise costing may be asked and the bidder will be selected as per the L1 in total project cost**. The university has a right to opt for partial Phase wise order or may opt for all the Phases in a single Go. Further university has a right to drop any Phase as per financial constraints.

Phase I: Examination System and Student Life Cycle

- Development of Web Portal for Students & Colleges
- Registration and Eligibility
- Online Student Registration (UG/PG) & Admission in Colleges
- Conduct of Examinations, Evaluation Process, Result Processing & Management
- Examination & Evaluation Process (CBCS System for Graduation System)
- Admission in University, Online Application Form with a provision of Online Entrance Test for Competitive Test and Merit based courses
- Course Wise Online Counselling
- Fee Management / Online Payment Gateway
- Training For Users (University & Colleges)
- Data Migration for existing Software Application

Phase II: Finance Management and Administration

Finance Management

- Financial Accounting, Grants, Contingency, Student, Fees Section
- Budget Section
- Medical Reimbursement/Scholarship Section
- Remuneration and TA/DA/LTC/Home Town Section
- CPF, GPF, CPS/NPS and Pension Section
- Payroll Management, Tax Management, Income Tax calculation, other Taxes etc.
- Payment gateway design/Development

Administration

- VC, Registrar Office
- Establishment
- Web Portal of Employees
- Academic
- GAD
- Administration Offices including Statutory Offices
- Important Meetings as FC, EC, Court etc.
- Notices, Circulars etc.

Chief Warden Office

- Hostel management
- Issue of Student ID/Hostel Allotment
- Mess Management

File Management/ File Tracking System

Enquiry/ Help Desk Management System

- Enquiry and Help Desk Web-kiosks Systems & Student Services.
- Personal /Academic Information

Training for University Staff

Phase III: Faculties, Deans, Institutes & Library

University Departments, ICDEOL and Regional Centre

- Deans offices of Different Faculties
- Department/Institute /associated college profiling of courses, faculty, research areas, research papers, research projects, SAP FIST,e-resources, assignment tracking, achievements, innovations, quality assurance initiatives, notice board, picture gallery etc. and other Funding Agencies
- UIIT, UCBS, UILS, College of Evening Studies, ICDEOL
- Centralized Time Table to manage Choice Based Credit System (CBCS)
- Online SMS Service

Library Management System

- Acquisition System
- Catalogue System
- Circulation system
- Stock Verification
- Serial Control
- Thesis, Rare Book & Manuscript System
- Integration with Shodh Ganga

Dean Colleges cum Dev Council (CDC)

- Inspection/Approval of New Colleges/ Teaching Staff.
- Capacity Enhancement Centre.
- Students Welfare /Extra-curricular Activities/Schemes

Dean of Studies

- The Group-wise Merit Scholarships
- Research Scholar fellowships
- Dean's Meeting etc.

Dean Student Welfare

- Students Welfare /Extra-curricular Activities/Schemes
- Publication of students magazine
- Student election management
- Students educational tours felicitation
- Amalgamated funds management system
- Event management requests on the campus
- University cultural events (Youth festivals etc.)

Director Sports

- Management of sports infrastructure
- Selection of sports persons for various sports for university, state, national and international events
- Coaching management for various sports
- Providing sports facilities and facilitating participation in sports events.

UGC Human Resource Development Centre

- To conduct Refresher Courses and Orientation Courses.
- To conduct Short Term Courses.
- To conduct Interaction Program.

Pre-Examination Coaching Centre

- Admission to various short term courses for competitive examinations, UGC CSIR NET/SLET
- Management of coaching schedules for various programs
- Arrangement of resource persons
- Holding mock tests for various examinations
- Management of Hostel of the Centre
- Disbursement of TA/DA to participants belonging to scheduled categories

Dean, Planning & Teachers' Matters'-cum-Planning & Development Office

- Preparation of Five Year Plan to be submitted to University Grants Commission, New Delhi
- Finalization of Plan Proposals of the Teaching Departments/Construction/ University etc.
- To allocate the funds received under the Plan Budget.
- Matters concerning UGC and State Plan Grant.
- Implementation & Monitoring the progress of various schemes approved by the UGC.
- To conduct meeting of the Academic and Planning Board and Unassigned Grants Committee for allocation of funds received from UGC.
- To provide National and International Travel Grant to the teachers' to attend Seminar/Workshop/Symposia, Publication Grant etc.
- All matters concerning financial assistance for establishment of project/proposal of the teacher correspondence thereof with UGC/ State/ Government of India etc

Internal Quality Assurance Cell

- To convene the meeting of Internal Quality Assurance Cell regularly.
- Preparation and Submission of Annual Quality Assurance Reports of Himachal Pradesh University to the National Assessment and Accreditation Council (NAAC).
- Initiation of various activities under quality assurance programmes.

- To ensure the implementation of decisions taken in the meeting of IQA Cell.
- Development of academic quality radars.
- Correspondence with NAAC w.r.t. the Re-Accreditation (3rd Cycle) of Himachal Pradesh University.
- Preparation of Self Study Reports for Re-Accreditation purpose.
- Collection of citation data of HPU Faculty & Research Scholars.

Phase IV: Other Activities

Store Purchase Office

- Store inventory management system
- E-Tender management system
- Write off management system
- Issue of no objection certificates

Public Relations Office

- Publication of tender notices, recruitment notices, admission notices etc.
- Publication of University News Letter
- Preparation and printing of Annual report and other such reports to be placed before statutory authorities of the university
- Photo archiving
- Press releases and reports
- Archiving of press reports in print media, electronic media etc.
- Keeping presence of University on Social media
- Publication bureau of the University

Estate Office

- Management of estates of the university (academic infrastructure, allotment of space for teaching departments, research facilities, administrative spaces, residential spaces, hostels etc.)
- Maintenance of revenue records pertaining to university estates on the campus and regional campuses.
- Legal disputes related to estates of university.

Construction Wing

- Construction Section
- Design Section
- Architect Section
- Complaint Section/Tracking System
- Inventory

Vehicle Management

- Vehicle Master
- Pick Up Points
- Vehicle Operator Details
- Vehicle Maintenance

Placement Cell

- Campus Placement Automation.
- Alumni System

Dispensary Management

- Doctor/Patient Management Module

- Inventory Management of Medicine/Medical Equipment

Faculty House

- Rooms bookings.
- Hospitality arrangements
- Tariff management
- Accounts management

Campus Wide Optical Fiber Network Management

Security

Canteen

Details about Different Offices/Branches

Examination Wing

Dairy and Dispatch (Controller of Examinations):

The dairy and receipts branch of HPU is responsible for entry and maintenance of records of the admission forms received by post or in person from either a college for regular candidates or by a private candidate in the Dairy Register. They also maintain details of any communication received by HPU and forward it to concerned person.

Conduct Branch:

This branch is the information-passing (sharing) branch in the Examination Wing. It prepares the exam schedule for the various UG, PG, Diploma and Certificate courses held throughout the year. This branch provides information to the students, affiliated colleges or university, Examination Branch, Secrecy Branch and Revaluation Branch regarding examination months and year including occurring of each paper on specified date and time. In addition to this, this branch also decides about the examination centres. The conduct branch is divided into two sub branches namely: a) conduct-I Branch and b) Conduct-II Branch. The brief introductions of these are as follows: 1) Conduct-I Branch: Creation of examination centres and inspection thereof, Creation of practical examination centres, Preparation of date-sheets both for theory and practical examinations, Appointment of conduct staff like Supdt./Dy. Supdt. and Sr. Sudpt, Appointment of practical examiners, Payment of TA/DA to the conduct staff and practical examiners, Payment of advances to the Sudpt./Sr. Supdt. as the case may be.

Conduct-II Branch: Maintenance of evaluated scripts store, arranging scripts subject-wise, Roll Number wise and examination wise/year-wise.

Supply of evaluated scripts on demand to the evaluation branches for settlement branches for purposes for re-evaluation/re-checking, Re-arranging the scripts after receiving them back from the evaluation and re-evaluation branches after doing the needful and restoring them at proper places, Disposal/Auction of evaluated/re-evaluate scripts after the required period of retention.

Examination Branch – I:

The Examination Branch-I deals with Under Graduate Classes. The head of this branch is Deputy Registrar who is solely responsible for all activities of branch. The following are classes: 1) Bachelor in Arts (BA) with following subjects: Hindi, English, Sanskrit, Political Science, History, Public Administration, Physical Education, Economics, English, 2) Bachelor of Science (B Sc)- Medical Group: Botany, Zoology and Biology, Non-Medical Group: Physics, Chemistry and Mathematics. This branch is further divided into six units and a Section Officer heads each unit. The brief description of these is as follows: 1) Unit 1: This unit deal with BA-I class only. This has the highest number of appearing candidates (approximately more than 50,000 per year), 2) Unit 2: This unit deal with B.Sc-1 and B.Com-1 classes, 3) Unit 3: This unit deal with BA-II class only, 4) Unit 4: This unit deal with B. Sc-II and B. Com-II classes, 5) Unit 5: This unit deal with BA-III class only, and 6) Unit 6: This unit deal with B. Sc-III and B Com-III classes.

Examination Branch –II:

The Examination Branch-II deals with Post Graduate, Diploma and certificate courses class. The head of the Examination Branch is Deputy Registrar (DR). This branch is further divided into five units and Section Officer heads a unit. The brief description of these five units are as follows: 1) Unit 1: This unit deals with all language classes such as MA-English, MA-Hindi, MA-Sanskrit and diploma or certificate course in French, German or Bhoti language, 2) Unit 2: This units deal with Political Science, History, Public Administration, Economics, Units 3: This unit deals with Physics, Chemistry, Mathematics, Botany, Zoology and Biology, 4) Unit 4: This units deal with Master in Computer Applications (MCA), Master in Business Administration (MBA), Master in Tourism Administration (MTA), Master in Business Economics (MBE), Bachelor of Legislature Law (LLB), Master of Legislature Law (LLM) and M A (Physical Education), and 5) Unit 5: This unit deals with all diploma and certificate courses such in Computer Applications and Yoga etc.

Examination Branch – III:

The Examination Branch-III deals rest of the course mentioned above in the Examination Branch-I and Examination Branch-II. The head of this branch is Assistance Registrar who is solely responsible for all activities of branch. The following are the classes: OT MIL, Prabhakar, Shashtri and other courses.

Secrecy Branch:

The secrecy branch deals with secret matters of the examination process such as printing of question papers and dispatch of these to the concerned examination centres as per the information provided by the Examination Branches (Exam-I, Exam-II and Exam-III). This branch has two main sub branches namely: Secrecy-I Branch and Secrecy-II Branch. These are further divided into units. The brief introductions of these are as follows: 1) Secrecy-I Branch Unit-1dfeals with preparation of panel of paper setters for Post-Graduate courses including diplomas, appointment of paper setters, filling of question papers and dispatch thereof to the concerned examination centres, and preparation of remuneration bills of papers setters, 11) Secrecy-I Branch Unit- II deals with approval of panels of examiners for Ph.D. theses, MD/MS theses, dissertation and project reports, appointment of examiners, evaluation of theses, dissertation and project reports, arranging of Viva-voce, preparation of remuneration bills of examiners, payment of TA/DA to the examiners. The major functions of secrecy-II Branch (Unit-I) are : preparation of panel of paper setters for under-graduate examinations including OT/MIL and Professional courses like MBBS/BDS/BAMS etc., appointment of paper setters, billing of question papers concerning and dispatch thereof toe the examination centres.

The major functions of secrecy-II Branch (Unit-II) are: printing of secrecy material, disposal/auction of old question papers and other obsolete material, maintenance of secrecy material store.

Evaluation Branch:

The Conduct Branch supplies blank answer books to examination centres. The scripts are received in Evaluation Branch direct from examination centres where fictitious roll numbers where necessary are affixed on the basis of key book prepared by Secrecy Officers appointed by the higher authority Vice-Chancellor/Controller of Examination. Packets are prepared and sent for evaluation. Awards when received are passed on to the concerned examination branches/section/units for compilation of results. This branch deals with evaluation of answer sheets excluding revaluation cases. The brief introduction of this branch is as follows: preparation of panels of examiners for post-graduate, undergraduate, diploma and certificate courses, preparation of spot evaluation centres.

Preparation of packages of scripts for dispatch/home delivery/at evaluation centre, if any, collection of awards and exam scripts, preparation of remuneration bills and spot payment to the examiners, settlement of RLA/stray cases with reference to record maintained by them., payment of TA/DA to the examiners, if any.

Re-Evaluation Branch:

The branch deals with post result processes such as revaluation of papers. This branch also deals with revaluation cases of UG, PG, Diploma and Certificate Courses. The working of this branch is as follows. The candidates who are not satisfied with their marks/results can apply for re-evaluation

within 21 days of the declaration of results. The Re-Evaluation Branch through COE Diary Section receives re-evaluation applications on a prescribed form. It prepares the panel of examiners for Undergraduate, Postgraduate, Diploma and Certificate courses. The required answer sheets of the candidates are identified and information is passed to the Evaluation Branch who maintains the scripts store. On receipt of the required scripts (answer sheets) fresh fictitious roll numbers are assigned/ affixed by the Re-evaluation Branch to maintain secrecy. Revaluation of scripts by adopting the following procedure:

Marks on the scripts are taped with opaque tape and fixing of new fictitious roll numbers. The scripts are sent to the first examiner for fresh evaluation (through special messengers/postal mode/or to spot re-evaluation centres). The answer sheets and marks are returned back by the examiner to the revaluation branch. The re-evaluation results are prepared subject wise and the same along with original detailed marks cards are passed on to the concerned examination branches (Exam-I, Exam-II and Exam-III) for further processing of results. Preparation of remuneration bills and payment to examiners and payment of TA/DA are settled. Return of re-evaluated scripts to the scripts store.

Registration & Migration Branch:

Every student on joining the University as regular student or through Correspondence Courses or as a research scholar is required to get himself registered with the University. The registration and migration branch deals with registration and migration activities. The students get themselves registered with the university to appear in university's exams. The students who want to get register with university fill registration or admission form and attach board and university migration certificates for admission in Undergraduate and Postgraduate classes. There are three main categories of candidates namely private, ICDEOL and regular who get register themselves within this University.

Entrance Test Cell:

This is a special cell in the Examination Wing that conducts various types of the entrance test. The entrance test is conducted for the following course: MBA, MCA, MTA, LLB, BJMC, M. Sc (Physics, Chemistry, Mathematics, Botany, Zoology and Mathematics) in addition to MBBS, CEET (BE/B. Tech), BDS, BAMS, BBA, BCA, MD etc. The Entrance tests are conducted once in a year and have following activities: 1) printing of prospectus and necessary notifications with regard to last date for receipt of Examination Admission Forms/Applications, 2) necessary scrutiny of the application forms for finding of discrepancies if any and respective intimation to the students, 3) assigning of roll numbers, 4) conduction of Entrance test

Unfair Means Cases Cell (UMC):

This is an integral cell of Examination Branch that deals with all UMC of the UG, PG, Diploma and certificate courses.

Degree Cell:

The Degree Cell deals with the preparation and dispatch of the degrees for all the UG and PG courses including Diploma and Certificate. It collects information from the concerned examination branches to prepare degrees.

Administrative Wing

All administrative matters & establishment of the University are taken care by this Branch. The Registrar is an Officer of the University and is the ex-officio Secretary of the Academic Council, the Executive Council and the University Court (Senate) and is the custodian of the records. He is assisted by Deputy Registrars Assistant Registrars who supervise the following Branches/Sections:

- General Administration Branch
- Establishment Branch.
- Academic Branch
- Store Purchase branch
- Estate Office Branch

General Administration Branch

GAD branch looks after rules/regulations and day-to-day administration including common services of the University. The meetings of the University Court and the Executive Council, which are the two highest governing bodies of the University, are conducted and the implementation of their decisions is monitored. The Chancellor (Governor of the State) presides over the meeting of the University Court (Senate)

Establishment Branch

Maintains personal record of employees of the University and regulates their service matters. The University has app. 200 Teachers and 1000 Non-teaching employees.

Academic Branch

The Himachal Pradesh University grants affiliation to all those private institutions that are permanently/temporary recognized by the Education Department Himachal Pradesh. Deals with affiliation / association of colleges / institutions falling within the jurisdiction of the University, equivalence of degrees of Indian and foreign Universities / Boards, framing of syllabi, registration of students for Ph.D and D.Sc. and conduct meetings of the Academic Council which supervises general academics policies of the University and advises the Executive Council on these.

Store Purchase branch

Purchases of materials required for various offices and distributes the same to different sections.

Estate Office Branch

This Office looks after the properties (land and buildings) and allied matters connected there with S.C. / S.T. Cell Officer In charge. This Cell oversees the implementation of various instructions of the Governments for the upliftment of the students and employees belonging to Scheduled Castes and Scheduled Tribes.

Finance Wing:

The finance wing is responsible for encashment of draft and reconciliation with the bank statement that is received on monthly basis.

The Finance Officer is a whole time salaried Officer of the University. The Finance Officer functions under the overall control of the Vice-Chancellor. He is the secretary of the Finance Committee of the Himachal Pradesh University and performing following functions:

Exercise general supervision over the funds of the University and advise it as regard its financial policy.

Is responsible for the proper maintenance of the accounts of the University; and Perform such other financial functions as may be assigned to him by the Executive Council or as may be prescribed by these Statutes or the Ordinances; Provided that the Finance Officer shall not incur any expenditure or make any investment exceeding Rs.10,000/- without the previous approval of the Executive Council.

Reconciliation is done on the basis of transaction is generated by the bank. The main function of this branch is to maintain a daily bank register with the detail of all the drafts maintained in the form of lots.

Accounts-I

All financial matters of the University are dealt with by this branch. These are stated as follows:

Salaries: Salary-Teaching, Non teaching, R.C. Dharamshala, H.P. University Centre for Evening Studies. Redrawls- GPF,CPF,CPS, Sending Quarterly Income Tax returns, Reconciliation with Income Tax Authorities as required

Bank Loans, Honorarium to Chairmen, Directors, Entries of payments and checking of scripts etc. paid to the teaching, non teaching staff., Guest Faculty payments., Re-employment to University staff, Audit Paras

Payment to Retirees: Leave encashment, Group Insurance, Welfare fund, Ex gratia, payments etc. TA/DA: TA/DA to examiners of all teaching departments, outsiders, insiders, COE wing, University staff, AERC, CCS, RC Dharamshala, spot payments and HPUCES. Governing Bodies- Executive Council, University Court, Finance Committee, RDC, Building Committee. Unassigned grant (UGC)- Advances and adjustments. TA/DA advances and adjustments to all colleges affiliated to the University. Audit paras

Medical claims: Medical Bills of University Staff, Medical Bills of Retirees Teaching and Non-Teaching, Medical Advances and adjustments thereof.

Accounts-II

The section deals with Projects funded by Other Agencies, Fellowships, Scholarships and Contingency of all the Projects Departments under UGC FIST, ICMR, ICSSR, ICHR Academic Staff College, PRC, Sub DIC,NBHM, SSA, DRDO, State Funded Projects, DST, DBT, Leave Cases, General Circulars, Establishment matters, INSPIRE Fellowships and Contingency, Atomic Energy etc. All NRI Departments, Remuneration to Paper Setters and Examiners, Evaluators of all Classes, Sanction Cases. UGC, CSIR, Rajiv Gandhi and PDF, Meritorious and other UGC Fellowships, Scholarships, Contingencies, UGC Projects of all the Arts and Science Departments. Contingency of all the Arts and Science Departments etc. HPU Fellowships/Scholarships and Contingency, SSA Adult Edu., Construction Division. Advances/Adjustments of COE Wings. Advances/Adjustments of other than Examinations/Library/Part-II Development Plan and Non-Plan, MTA, Adult Edu., Phy.Edu., STEP, ITS. Refund Cases/Remuneration of Non-Teaching staff of COE Wing. Contingencies of Examination/CDC/AERC/HPPEC etc. Contingencies of Main Office/SPO/DSW/DS/Hostels/Pool Office/Phy.Edu./Estate Office/Health Centre/Legal Fee/Income Tax Returns etc. Electricity, Water and Telephone Bills of all the University Departments and offices. Diary and Dispatch of the Section.

Budget Branch

The role of the Budget Branch is to prepare Annual Budget and get it passed from the Finance Committee, to prepare agenda and to convene the meeting of Finance Committee from time to time, to receive all type of grant from the State Government, Government of India and other agencies. To examine the files received from the Establishment Branch such as retirement cases, promotion, placement in the next scales and other disputed case of H.P. University, Agro, CCS etc.To arrange payments of salary of the staff and arrears as accrued from time to time as a result of promotion and new scales. To receive and distribute the payments of JRF and SRF in respect of different agencies i.e. UGC, CSIR, DST, DBT, SAP, FIST, Govt. of India, State Government, SC/ST fellowship, Travel Grants, Research projects & Schemes etc. To make correspondence with different agencies with regard to construction activities are handled in the University by them. To monitor the plan works such as X Plan XI Plan of the UGC viz-a-viz its utilization by the University under different heads such as Academic and Non Academic activities.

Compilation Branch

Compilation of Annual Accounts, Conduct of Post Audit by AG & LAD, Compilation of Audit Paras, Supply of statistics to the State/Central and UGC about the funds.

Internal Audit Branch

To carry audit of various deptts and administration is done here from time to time.

Provident Fund Management branch

The Branch deals with allotment of GPF/CPF Account nos. to its subscribers and maintenance of its accounts & final payment thereof and also grant of refundable/non refundable advances.

Dean of Studies

The Dean of Studies office functions under overall control of the Vice-Chancellor and look after the academic and administrative matter of the University. There are 28 teaching departments in the University Campus. All the academic activities of various departments are coordinated by the Dean of Studies. As and when a new department is created or new subject is introduced for teaching in the University, the role of the Dean of Studies becomes very significant. The Dean of Studies is

assisted in his work by the Deans of Faculties in the interpretations of rules with regard to admission and other academic matters. The Dean of Studies is responsible for making the schedule of admissions, teaching, examination and publications of prospectus for admissions. The Dean of Studies is also responsible for managing the entrance tests of candidates desirous to seek admissions to some of the P.G. classes on the campus. The Dean of Studies as Senior Superintendent is also responsible for the examination schedule, holding of the examinations on the campus wish the help of Superintendents, Deputy Superintendents and Invigilators put on duty as per the roster of teaching faculty for the examination. The Dean of Studies is also responsible for giving scholarships to research scholars on the basis of merit in the qualifying examination. Scholarships are awarded to the candidates and later continued as per the rules after receiving the recommendations from the Department on the basis of the progress of the candidate. The Group-wise Merit Scholarships are also awarded to candidates from among the fresh entrants in P.G. Classes. One group scholarship is exclusively given to one girl student on the basis of highest merit.

Dean Student's Welfare

Office of Dean Students' Welfare functions as a nodal centre to promote cooperation and fellowship among students on campus. It is actively involved in coordinating activities for the welfare of students. Taking into account their difficulties and socio-economic diversities against their cultural relativism, it provides them facilities to articulate their creativity and aspirations. It aims at social harmony and campus peace. The students are encouraged to give expression to their talents to enrich our social fabric and improve campus life besides pursuing their academic targets. This aims at shaping students into social assets, making them complete citizens alongside their academic accomplishments. This office also looks after the SCA elections in the university.

Chief Warden Office

This office undertakes all the hostel activities and hostel admission process.

College Development Council

Catering to human resource development is one of the prime aims of education and creation of conditions that contribute to equity and access to opportunities for higher education is primarily linked to development of collegiate education. With this in view, more than twenty years ago, University Grants Commission (UGC) had recommended the setting up of College Development Councils in affiliating universities in order to co-ordinate the development of colleges and to facilitate the implementation of its schemes geared towards improvement of standards of higher education. In pursuance of this it was in 1987 that College Development Council was set up in Himachal Pradesh University with the help of the UGC. Since then it has continued to act as a clearing house of information on UGC assisted activities and initiatives. It acts as a facilitator and catalyst for the flow of its assistance in favour of eligible colleges through its active liaison with the UGC which enables them to take maximum advantage of its different schemes. College Development Council consists of thirty three members and it generally meets twice in an academic year to interact on collegiate matters and to monitor implementation of various UGC assisted schemes. It maintains a reliable database of information on all related matters pertaining to courses, faculty, enrolment, assistance profile etc., of each of the colleges in the State. It has a full time Dean of Colleges-cum-Director and support staff to carry out its administrative and academic functions in the task and planning, coordination and development of collegiate education in the State.

Dean Planning and Teachers Matter

Functions of the planning & Development Section :
Preparation of Five Year plan.
Preparation of State Annual plan.
Finalisation of Plan proposals of the Teaching Departments/ Construction/ University etc.
To get allocated funds under the Plan Budget by the Academic and Planning Board of the University.

All matters concerning UGC and State Plan Grants.
Implementation of the plan Scheme approved by the UGC.
Monitoring the progress of various schemes approved by the Commission.
To ensure timely implementation and completion of the approved programme under the plan.
To hold the meeting of the Academic and Planning Board for allocation of the UFC/ state plan grant.
To hold the meeting of the Unassigned Grant committee for allocation of funds.
To get allocated the Unassigned grant to teachers for National Travel and International Travel, Seminar/symposia etc., publication grant and sport for Minor research Project by the Unassigned grant Committee of the University.
All matters concerning financial assistance for establishment of project/ proposals of the teachers correspondence thereof with UGC/ State Government/Government of India etc.

Construction Wing

The university is having its own construction wing which looks after all the construction work, repair work, drawing section etc.

ICDEOL

Teaching through distance mode is now recognized as an effective method of instruction in all the advanced countries of the world. In the fast developing socio-economic milieu of today, educational facilities need constant refurbishing and augmentation. It is now acknowledged by the academics of all shades that it is learning which is important and not the channel or the process through which one gets enrolled for education. The educational system in India has been changing from time to time, taking into consideration the socio-political needs and economic conditions of the society. Although the contribution to the various branches of learning by the conventional educational system cannot be underestimated, the fact remains that education through the formal mode has been accessible only to a few. The distance and open education system as an alternative mode of imparting instruction has, over the years, been meeting the demand for education of millions of people at different levels. It is an effort not only to solve the problem of over-crowding in our-educational institutions but also to equip the adult community with the tools and skills to attain professional competence. Over the past four decades various Indian universities have adopted the programme of distance education or open learning. Realising the importance of the system, Indira Gandhi National Open University was established in 1985 in New Delhi. Immediately after its establishment in 1970, the Himachal Pradesh University took a bold step towards proliferation of knowledge and democratisation of educational opportunities by setting up a Directorate of Correspondence Courses in 1971. The University has played a pioneering role in launching the programme of distance education at the postgraduate level. It was the first to impart instruction at postgraduate level in social-sciences, humanities, commerce and teacher training through the mode of distance education. Research studies at M.Phil. level were also introduced through this medium in the various disciplines. Over the years, the Directorate of Correspondence Courses moved towards absorbing the emerging philosophy of distance education and adopting multi-media approach to impart instruction. In view of this, the Directorate of Correspondence Courses has now been rechristened as the International Centre for Distance Education and Open Learning (ICDEOL). It is located in the H.P. University complex at Summer Hill, a suburb at the western end of Shimla, 5 Km from the main town. Summer Hill Railway Station is a 5 minutes walk from the ICDEOL complex.

IIHS

The University of Integrated Himalayan Studies (UGC Centre of Excellence) has been set up by Himachal Pradesh University vide notification no. 9-42/2002-HPU (Genl.) dated 1.4.2002 and hence came into existence with effect from 1st April 2 002. As per UGC directives, the institute has academic, administrative and financial autonomy for achieving "Excellence Plus". Himalayan region is rich in both natural resources and cultural heritage. The present venture is to try and bring the hidden treasures into limelight. The mission of the institute is to create an integrated knowledge base and evolve strategies for the development of the Himalayan region and its people through research, academic courses of practical utility and service. The institute has since its inception been

moving steadily towards the fulfillment of its mandate. Its significance lies in influencing development decisions and actions by compiling and providing concepts, strategies, solutions and lessons from past experiences. The institute will make available perennial flow of information for the development planners. It will generate and synthesize the knowledge required to utilize the resources in the Himachal Himalayas more effectively and to deal with the problems of the region. The institute visualizes an important role for itself in bringing into focus the hitherto scattered areas relating to men, women and resources in the Himachal Himalayas.

Agro-Economic Research Centre (AERC)

The Agro-Economic Research Centre (AERC) at the Himachal Pradesh University was established in December 1972 by the Ministry of Agriculture, Government of India to carry out research and investigations in the field of Agricultural Economics in Western Himalayan Region consisting of Himachal Pradesh and Jammu & Kashmir. This is one of the 12 AER Centers established by the Government of India

Himachal Pradesh University Centre For Evening Studies

Established in July 1962 as Panjab University Evening College, this institution became a constituent of Himachal Pradesh University on 22 nd July 1970. It was re-named Himachal Pradesh University Centre for Evening Studies in July 2001. B.Com. was introduced in 1975, M.A. in English & Hindi in 1979, M.A. in Economics in 1990, and M.Com. in 2001. This first and only full-fledged Evening College of Himachal Pradesh was started on the recommendation of the University Grants Commission to provide the facility of continuing education to the less privileged persons, especially those who have to go in for employment after schooling. Admission here is open to all women and genuinely employed male candidates who submit satisfactory evidence of being employed; however, unemployed male candidates are also considered for admission in all classes if seats are available, preference being given to the underprivileged. The Centre has a well-equipped open-stack library with about twenty-six thousand books, and a computer lab with Internet connectivity. This institution is included in Sections 2(f) & 12(B) of the UGC and is financed by the University (mainly with the help of grants received from the State Government); it also receives development grants from the UGC for library, equipment, Remedial Coaching for SC/ST/OBC/Minorities etc.

Population Research Centre

The Population Research Centre (PRC), Shimla was established by the Ministry of Health & Family Welfare, Government of India, New Delhi in 1989 at Himachal Pradesh University, Shimla for the study of population, health and social welfare related issues in the overall social and economic development of Himachal Pradesh. The primary objectives of the PRC are:

To conduct research and training programmes on population and development related issues in a broad inter-disciplinary perspective;

To conduct studies to evaluate and monitor ongoing health and family welfare programmes in Himachal Pradesh;

To promote co-operative endeavour and interaction between research scholars and institution in the field of health, population and development;

To undertake client specific sponsored studies / surveys on request from various agencies (e.g. central and state governments and other funding / donor agencies) on consultancy basis, in the broader field of population, health and family welfare related issues in Himachal Pradesh.

The Population Research Centre has a team of permanent researchers that includes its Hony. Director, Deputy Director, Assistant Director, and 4 Research Investigators. In addition to these, it has 2 Fellows. There are four members of the supporting staff.

Pre Examination Coaching Centre For SC/ST

The university runs a Pre Examination Coaching Centre for SC/ST students. This Centre was transferred from Himachal Institute of Public Administration to H.P.University in 1993. During the last two years coaching in various courses namely PMT,PET,HAS and POs was organized. About 470 students have benefited from the said coaching. It is pertinent to mention here that during 1998 and

1999 as many as 25 students got admission in different Engineering Institutions and 20 students in Medical Colleges who were imparted coaching by the institute.
Every year the Centre organizes pre examination coaching in respect of CCS, HAS, Banking Services (POs), PMT and PET courses. The coaching has also been extended to the General Category students who are charged a nominal lump sum fee for each of the above mentioned courses.

UGC Human Resource Development Centre

The UGC-HRDC conducts four types of programmes. In Orientation Programme the main emphasis is on inculcation of certain teaching, research, extension and managerial skills and conceptions among the college and university teachers. The teachers are made to realize their role in solving the problems of the society. They are motivated to become self-reliant and competent for shouldering the responsibilities of education in the contemporary society. The second types of programmes organized by the Human Resource Development Centre are refresher courses. In the refresher courses the teachers are helped to update their subject knowledge, learn new teaching and research methods, utilize the information technology to understand the developments in their subjects as well as other interrelated areas of study. They are also required to analyze the course contents vis-a-vis the requirements of the society.

ORIENTATION COURSES
Orientation Courses The orientation courses are essentially meant for college/university teachers with not more 8 years of continuous service. Then after a gap of one year, such teachers may opt for Refresher Course.
REFRESHER COURSES
The eligibility for attending Refresher Course for teachers who have not attended earlier Orientation Course will be two years of service. There should normally be a gap of one year between two successive Refresher Courses.

EDUCATIONALGADGETS

The college has developed its two Conference Rooms, which are well equipped with Audio-Visual facilities, multi-media projection systems, tape-recorder and conference systems. The teacher-learners are exposed to the educational facilities not in theory but in practice through different exercises. An intensive use of multi-media projector (compatible with computer, VCR and VCD, LCD, Web Camera, Eduset), overhead projector, computer, slide projector, VCR, tape-recorder etc. adds a new dimension to the whole activity.

IT LAB AND EDUSAT

The HRDC has state of the art IT lab with capacity of 32 computers. It has VSAT and inflibnet available on these intra networked computers. The HRDC is also having the facility of EDUSAT which is utilised for inter institutional tele-conference.

Institute of Tribal Studies & Research
The Institute of Tribal Development Studies at the Himachal Pradesh University, Shimla has been in operation since 1995-96 and heading towards the realization of its goals. The source of its funding has been State government that provided a very small amount of annual grant-in-aid under the Plan Budget “Part II, Development” of the Himachal Pradesh University, Shimla till 2002-03. However, from the year 2003-04 the State government has clubbed the budgetary provision with the Non-Plan budget of the Himachal Pradesh University, Shimla without the provision of any extra/additional grant-in-aid for the ITDS’ research and teaching programme. Due to which the activities of the

Institute of Tribal Studies have been severely affected. Despite having very meagre funding, the ITDS has been able to accomplish, as per the details below, more than what it could be expected.

University Institute of Information Technology

UIIT Shimla has established itself as a nodal centre for engineering and technical education being imparted through the different engineering institutions affiliated to Himachal Pradesh University. It provides academic and curriculum input to the all engineering and technical institutions affiliated with the University. The UIIT imparts instructions for Bachelor of Technology in Information Technology (B.Tech.(IT)).The duration of Bachelor of Technology in Information Technology shall be of 4 years spread over 8 Semesters on full time basis. Institute envisages from the beginning itself a close collaboration with the IT industry. This involves holding of workshops in the institute by IT professionals and providing scheduled hands on training to students by arranging winter and summer trainings to work on projects under the supervision of industry peers and faculty. Faculty will be encouraged to do consultancy in collaboration with industry so as to bring the market experience in the laboratories of UIIT. Faculty will also hold collaborated seminars/ workshops in the latest fields of computers and information technology.

Centre for Australian and New Zealand Studies (Under UGC Area Study Program)

To initiate and enhance understanding of the vibrant diversities of contemporary Australia and New Zealand which will be conducive to the growth of bilateral relations with these countries. The Area Study Centre will create a multi-disciplinary valuable Resource Centre on Australia and New Zealand which will create greater awareness in academic circles in North India about Australia and New Zealand. Initially selective courses in Australian and New Zealand Studies at M.A. and M. Phil. levels can be introduced in various disciplines and gradually full courses in Australian and New Zealand Studies may also be offered. Research at M. Phil and Ph. D. level would also be pursued. To state it very briefly the vision /aim of the centre is to make Australia and New Zealand accessible to India and India accessible to Australia them by building resources and promoting academic exchanges between these countries. Its Objectives are

To create a multi-disciplinary resource centre on Australia and New Zealand to provide information to students, researchers, teachers alike in North India. Areas which will receive special attention are: culture, history, geography, political science, economic policies, international relations--particularly the role of Diaspora communities, tourism etc., ethnic diversity, issues of Indigenous People and Gender issues etc.

To invite (in collaboration with Australia-India Council and New Zealand High Commission) academics, writers, artists, scientists, administrators, etc for lectures, workshops, etc on Australia and New Zealand.

To introduce teaching of Australian and New Zealand studies initially as part of MA and M. Phil courses, and gradually as the resources build up complete courses on Australian and New Zealand Studies will be offered.

Centre for Canadian Studies

Computer Centre

Setup in 1987-88, the Department of Computer Science, Himachal Pradesh University is one of the most reputed centre in the University today. It also manages one cyber centre which provides internet connectivity and Inflibnet facility to students of the university. University has a well laid out optical fiber campus wide network which is likely to be wi-fi enabled. All the departments administrative wings and units are connected with about 1000 IO boxes, which is connected to NKN.

University Science Instrumentation Centre

It has state of the art science instruments available to faculty members, researchers in various science departments and users from outside university on payment basis.

3

INSTRUCTIONS TO BIDDERS

The Bidder is expected to have read and examined all the instructions, forms, terms and specifications in the Request for Proposal Document with full understanding of its implications. Failure to furnish all information required in the Request for Proposal Document or submission of a bid not substantially responsive to the Request for Proposal Document in every respect will be at the Bidder's risk and may result in outright rejection of the bid.

DEFINITIONS, ACRONYMS & ABBREVIATIONS

The following definitions shall govern for the respective terms as hereinafter mentioned in this document:

University	Himachal Pradesh University, Summer Hill, SHIMLA. H.P. 171 005. http://www.hpuniv.nic.in
Bidder	Only those vendors who has participated in the EOI of the University and who has been invited by the University to submit their Proposal and intends to offer the services mentioned in this document.
OEM	Original equipment manufacturer in case of hardware and original assignee in case of software.
HPU	Himachal Pradesh University, Shimla, Also referred as purchaser
BG	Bank Guarantee
DD	Demand Draft
EMD	Earnest Money Deposit
IT/ICT	Information and Communication Technologies
PBG	Performance Bank Guarantee
RFP	Request for Proposal / Tender Document / Bid Document
SLA	Service Level Agreement
SP/SI	Service Provider. The terms Systems Integrator/ Implementation Partner / Bidder / Vendor are also used interchangeably.
GoHP	Government of Himachal Pradesh

COST OF THE REQUEST FOR PROPOSAL DOCUMENT

The Request for Proposal Document may be downloaded from the university website and its intimation will be sent to the firms who had participated in the EOI presentation. The bidders are required to submit their proposal by due date along with a requisite fee.

INVITATION TO BID

RFP Notice : No HPU/cc/102

Dated, Sept. 07, 2015

Through email

To:

Dear Sirs,

Pursuant to your participation in our Request for Expression of Interest made in the month of February 2015 and your presentations made on April 7th – 9th, 2015, I have pleasure in forwarding the Request for Proposal Document to enable you to submit your binding offers.

a. This Request for Proposal is for:

   Supply, Installation, Implementation, Integration, Configuration, Commissioning and Maintenance of the Web Enabled University Management System.

b. Bidders are advised to study the Request for Proposal Document carefully. Submission of Proposal shall be deemed to have been done after careful study and examination of the Request for Proposal Document with full understanding of its implications.

c. Sealed offers prepared in accordance with the procedures enumerated in "INSTRUCTIONS TO BIDDERS" should be submitted to Computer Centre, University not later than the date and time laid down, at the address given in "Schedule of Request for Proposal". The bids shall be opened in the presence of those Bidders who may wish to be present as per the "Schedule of Request for Proposal".

d. The University shall not be responsible for any postal delay about non-receipt / non-delivery of the documents.

e. This Request for Proposal Document is not transferable; however OEMs are free to quote through their authorized distributors or system integrators.

Yours Faithfully,

Himachal Pradesh University,
SHIMLA.

DIT SDC space and Expenditure

The space for installing servers and hosting web based application in SDC would be provided by the Government of Himachal Pradesh or by University.

The bidders may develop the solution to address the requirements. The bidder shall be paid CAPEX[Capital Expenditure] upfront after successful commissioning of the project and OPEX [Operational Expenditure] shall be paid on quarterly basis during the operation phase of the project.

Additionally Himachal Pradesh University may provide required space for installing hardware and software application in the University as well as in the H.P. State Data Centre. The IT equipments to be provided by Bidder at Himachal Pradesh University located at Summer Hill, Shimla or at H.P. State Data Centre. The important points about the usage of Himachal Pradesh State Data Centre are given below, bidders need to consider and make provision for these costs in the proposed business model:

The hardware or software that will be hosted in the State Data Centre which is under warranty and if the DCO (Data Centre Operator) needs a specialized skill set to Operate and Manage this hardware and Software O&M charges will be 1.0 % per Qtr of respective hardware and Software which will be confirmed/ascertained by the bidder from DIT before their final bidding. Accordingly the SLA [Service Level Agreement] for the respective hardware or software will be the responsibility of the DCO.

The rates quoted during the State Data Centre [SDC] bid processing for Common software usage shall be applicable on the hardware or software that will be hosted in the State Data Centre. The common software would include EMS Server Monitoring, EMS Network Monitoring, EMS Other Modules, Antivirus License, HIPS License, EMS Application Performance Management etc.

Modular Data Centre

The University may decide to establish its own Data Centre with all the Hardware and Software installed at the Campus only so that the complete infrastructure and DATA is available at the Campus only.

The University is linked with NKN (National Knowledge Network) and is having a bandwith of 1 GBPS having 3.5 mbps download and upload speed.

The address for all the correspondences pertaining to this Request for Proposal is:

Project Coordinator,
Project Management Unit
Computer Centre
Himachal Pradesh University,
Summer Hill, Shimla 171005
Mob: 94184-51924

4

DETAILED SCOPE OF WORK, SPECIFICATIONS & DELIVERABLES

General Scope

The scope of System Integrator (SI) includes, but is not limited to detailing of functionalities listed in this tender document, understanding of HPU's Business Processes as described in Use Cases provided by the University , supply and installation of the software, design and development of implementation plan for all the functions, detailing of co-existence strategies, configuration and realization of the standard application, development of interfaces/ integration with if any with the legacy systems, testing, assistance in data migration/ porting, technical support, core team training, functional and user training, final preparation, post implementation support for minimum four years documentation, recommendation for technical infrastructure including Hardware, Operating System and related software patches, project management and monitoring. SI will be required to ensure designing, configuring, testing and implementing all the functionalities/processes/modules that are required to be implemented.

The scope of work also includes program management, change management, process improvement, quality review, solution assurance services and other services as detailed in this document. Bidder is required to critically review the purpose of implementation and shall ensure inclusion of all other essential services (not mentioned specifically) for achieving the objective within the time frame for successful implementation.

Broad scope of work can be categorized into:

- Requirement Analysis, Gap Analysis & Business Process Reengineering
- Customization as per approved Gap in functionalities and processes
- Delivery, Installation, Data Migration, Training & Roll-out of the ERP solution
- Handholding support

Detailed Scope of Work (SOW)

The general scope of the proposed system is as follows: The SI shall be required to do the following:

I. Design and develop the Project Plan

The detailed project plan for the implementation is to be prepared at the commencement of the project. Program management services shall aim at constantly improving the business processes, leveraging technology solutions, incorporating best-of-breed industry practices to maximize opportunities for HPU‟s operations.

II. Deployment of SI Manpower

The Company will depute at the first instance a System Integrator (SI) and He or She should ensure deployment of sufficient specialized and experienced manpower throughout the project to complete the implementation & stabilization of the System in time successfully. SI team should have one Sr. executive at the level of Project Manager during the entire project implementation.

III. Design the Co-existence strategy

SI needs to provide the Coexistence strategy that is required as a result of the above Implementation Plan. This will facilitate the coexistence between the HPU and the legacy systems at various points of time, until all functionalities of HPU "Go- live".

IV. Detailed Design

SI has to design the relevant business processes with all details. This effort shall have the following important tasks:

• AS-IS process mapping to activity/ task level and current state analysis to identify areas of improvement and opportunities for standardization.

• Review the AS-IS processes and define TO-BE processes that are based on business requirements, GAP Analysis and standard enterprise product enabled "best practices" processes.

• Designing of the specific screens and data formats along with the process and method for entering the details.

V. Configuration

Based on the functionalities designed, SI shall be responsible for:

• Configuring the HPU system according to the processes

• Integration of the detailed design across functions

• Testing of configuration of Modules

• Identification of the fields that need to be developed for mapping of the information with the legacy systems

The design proposed by SI, shall be realistic, simple, flexible enough to take care of future changes in the organizational processes and easy maintainability.

VI. Integration management and testing

Integration management and testing should be as per the standard practices. This shall include development of exhaustive test cases, carrying out the integration tests on these cases and necessary corrections based on test results and the feedback. SI shall be responsible for completing the integration tests with the desired quality and schedule. HPU shall provide full support to SI in this connection. HPU and SI project team shall jointly envisage test cases for testing and developing test scripts. HPU will also make available live data for the purposes of testing wherever required. HPU, SI and Quality Review (SI) group shall extensively participate in the module and integration testing. SI shall be responsible for the documentation of integration process & test results. The data conversion testing shall also be done in similar manner to ensure that, after the loading of final data, the system remains stable.

VII. Data Migration

All specifications that are needed to populate the data into the new system need to be defined. SI, with the assistance of HPU‟s Core Team, shall develop jointly the templates and facilitate the migration of legacy and new data elements to the new system. This shall include the following tasks:

• Training and facilitating the HPU core team

• Assistance in Checking data quality and Integrity

• Identification & assist in development of the data upload/download programs
• Guidance for creating data extraction programs in the legacy systems to convert into the format as required by the Academic Management system
• Providing data migration tools to HPU
• Integration testing of the configured system using the populated master and transaction data
• Assist HPU team in Master Data management. SI‟s responsibility shall be to ensure that data migration is complete in all aspects, within time so that the requirements of the implementation are fulfilled. HPU shall cleanse and rationalize the data in the required format provided by the SI with their assistance. SI shall prepare and provide detailed system for Master Data management.

Necessary Interfaces

University is already having some computerized activities such as PG examination system, for which some necessary interfaces are required to be developed and old data is archived so that users can have access to stored data.

VIII. Technical Support

SI is required to undertake the following:
• Formulation of all policies and procedures related to System Administration, Data base Management, applications, archives, network management & security, back up etc.
• Prepare requisite system landscape and procedures for smoothly implementing

Final Preparation and Go-Live

SI is required to undertake the following at the HPU premise:
• Review readiness for cut over
• Facilitate in setting up central help desk for any queries
• Resolve Technical & functionality related issues
• Review the health, usage and performance of the system till it stabilizes
• Maintaining the interface between legacy system and the ERP during transition
• Documentation of the issues/problems that come up and solutions thereof.
• Final configuration/ integration, volume and stress testing
• Data migration
• Switch over to production environment.

XI. Post Go Live Support Stabilization support

SI shall be responsible for project implementation and correct & satisfactory functioning of the ERP Application. SI shall provide post – implementation support to the purchaser to ensure the efficient day-to-day functioning of the ERP for a period of one year from the Roll Out of the application across HPU. The full implementation team should be there on site during stabilization period.

XII. System Competency

For smooth running of the system & day-to-day functioning it is of paramount importance that adequate transfer of knowledge to the core team members of HPU takes place. Towards this, the SI should mentor a group of core team members who will be responsible for doing any configuration change independently. SI needs to take the responsibility of creating post-go-live support strategy. The objective of this exercise is to ensure that HPU builds in-house competencies to maintain the system in the long term without dependency on external consultants.

XIII. Documentation

SI shall ensure preparation of complete documentation of all configuration settings, other activities, steps / stages involved in the implementation with the support of the Core team. SI in close coordination with HPU core team shall prepare the business process document, end-user manuals and training documents in the jointly agreed templates.

XIV. Technical Architecture

SI shall validate HPU‟s existing technical infrastructure and recommend an appropriate solution to meet HPU‟s requirements in the implementation of the ERP Application. SI shall also monitor the archiving strategy, control and security aspects during implementation at HPU. SI will be responsible for the IT architecture design including hardware, networking and operating system for the implementation keeping in view the geographical spread & complexity of the implementation, communication infrastructure available in the country & at HPU and Data Archival & Storage requirements. The recommended architecture shall also provide for scalability, and test and production environments. SI shall assist in providing detailed specifications for the sizing of hardware to be procured by HPU. SI shall also validate the hardware configuration to be procured by HPU.

XV. Sign off and closure

HPU recognizes the importance of an expeditious sign off and closure of agreed deliverables and HPU Team will expedite the process of sign off and closure. However, SI shall facilitate such acceptance/sign off from the Management/Process owners for all the deliverables mentioned above by way of preparing / producing such documentation / review reports / test results etc. as may be necessary for HPU to ascertain that the prerequisites to subject sign off and closure have been met completely in accordance of the Contract Document.

XVI. Project monitoring & quality review by SI

The ERP implementation at HPU is to be audited/ monitored on continuous basis by the SI for ensuring smooth and timely implementation as per the requirement of HPU. The cost involved in such auditing is to be borne by the SI. The Quality Review Group, to be formed at HPU, shall comprise representatives of HPU & System Integrator. Senior representatives of System integrator will compulsorily attend the Steering committee meetings.

The envisaged responsibilities of SI in the Quality Review Group for the ERP implementation project at HPU are as follows:

Project review and monitoring – Programme Management

- Communicating the project status & risk to top management
- Establish Project Structure, Roles and Responsibility
- Participate in Steering Committee meetings
- Create Project Standards, Communication, Guidelines
- Drive Quality Review process
- Prepare Project Charter and Plan

Monitor Quality of Project's Progress

- Participate and suggest best practices and TO-BE process design during Business Blueprinting phase.
- Suggest Review recommendations and Update Steering Committee
- Periodic Review of Project Status, Plans and Progress
- Participate in select project meetings
- Establish effective issue reporting and resolution structure
- Seek Periodic feedback from Process Owners
- Assist HPU in Change Management Process
- Review HPU team participation and knowledge transfer
- Provide remote system monitoring and support
- Ensure smooth hand over to HPU

Monitor Quality of Go Live and Stabilization

- Review system Go live readiness
- Ensure smooth handover
- Review system maintenance procedure
- Review business continuity from disaster recovery site
- Provide Expert consulting assistance

• Study Post Go-Live status and submit report to HPU

4.2 Guiding Principles

4.2.1 Organization Change Management

The purpose of Organization Change Management is to ensure that HPU achieves the expected results from its investment in ERP in a short span of time. As part of this service, SI will work closely with HPU‟s core team in introducing the change-processes, stressing the importance of organizational alignment, and introducing the necessary tools and techniques needed to address issues in the Organization.

4.2.2 Process Improvement

Process Improvement will be done to enable HPU to adopt some of the best practices embedded in the standard enterprise systems. SI will identify the areas that can bring maximum benefits in close coordination with HPU process owners. The consulting SI team needs to work closely with the user team to translate this into a set of processes that can be implemented in the ERP. In order to do this, SI will also bring in knowledge of the best practices adopted by organizations.

HPU envisages that the proposed process improvement and process re-engineering is standard enterprise product enabled. This will enable early completion of the implementation and will also avoid any major re-work. Accordingly process improvement exercise will be an integral part of implementation and the project plan for the same will be dovetailed as part of the overall ERP implementation plan.

4.2.3 Knowledge Transfer & Training

The implementation approach followed by SI has to be such that it ensures that there is significant knowledge transfer from consulting team to the HPU Core Team during the course of implementation. This coupled with the emphasis on the product and implementation training offered to user teams before starting the project ensures that the required platform for knowledge transfer is established. SI shall impart user‟s training. A well-designed training strategy is vital for development of competency that would enable HPU‟s core project team to steer the ERP implementation program throughout the organization. SI shall therefore prepare a plan for suitable training needs of HPU‟s project core team members that would help them understand the ERP system in detail and subsequently undertake the implementation.

4.2.4 Project Management Guidelines

• The project will be governed by a Steering Committee that consists of members appointed by HPU, member(s) of SI and Quality Review group. HPU will approve the constitution of Steering Committee at the commencement of the project.

• SI shall be responsible for “go-live” as per the agreed schedule and output from the deliverables in each Phase.

• HPU shall appoint a Project Management team (PMT) who shall co-manage the project together with the Project Manager appointed by SI and drive the project to successful completion.

• SI, in coordination with HPU‟s PMT, shall execute the detailed design/ configuration/ testing and all other aspects of implementation.

In all the activities of implementation, SI‟s Project Team shall bring in expert Inputs and guide the project. The HPU‟s Project Team shall actively participate along with SI in carrying out required activities.

4.3 Deliverables

SI shall be required to follow milestone-based deliverables for the ERP Implementation process. The methodology, detailed project activities, deliverables and responsibilities, which are to be followed during implementation are given as below.

Sl. N0	SCOPE	DELIVERABLE
1.0	**PROJECT PREPARATION**	
1.1	The System Integrator (SI) shall submit detailed Project Plan and get it finalized	Agreed And Finalized Project Plan
1.2	The SI shall study the Scope of the work, in particular the Functionality Requirement Specifications, Technical Requirements and give their observations/ understanding of the total work, resource commitment and elaborating broadly on the development proposed to be taken up through customization/third party tool/ bespoke development.	Inception Report
1.3	**Installation of development environment**	
1.4	Installation and commissioning of Development server	
1.5	Installation and commissioning of ERP Application licenses	
1.6	Installation and commissioning of requisite hardware, networking and communication infrastructure at the premises of the HPU All deliverables being supplied by Product vendor will have to be certified by the SI for ascertaining its correctness, quality & completeness with regard to product requirement for project implementation	
1.7	Project Kick Off and Project preparation phase closure	Team Mobilization Sign Off
2.0	**ANALYSIS AND DESIGN**	
2.1	The SI shall study the existing functionalities of all the business processes & submit the document detailing at least the functionalities, problem areas & expectations of the purchaser.	"AS-IS" process Mapping And Analysis
2.2	After analyzing performance of the "AS-IS" processes, the supplier shall prepare a comparative analysis of each of the functionality with the best practices of the standard enterprise product so as to identify the desirable processes. He will then prepare the "TO-BE" Process document along with Gap Analysis Report, which will include his specific recommendations for the HPU‟s adoption of new process	"TO-BE" Process & Gap Analysis
2.3	Freezing of customization requirement after the HPU finalizes its decision to adopt some of the best practices of the standard enterprise product	Customization Requirement Report
2.4	Identification of the requirements for Master Data	Master Data Structures
2.5	HPU has a number of legacy systems that may be retained. The SI shall integrate the specified legacy systems with the ERP system as per specifications.	Legacy Systems Integration Report

2.6	Installation and commissioning of Quality, Training & Production server	
2.7	Designing of Master Data structure	
	Change management	
2.8	Identify the Change Management issues o Processes/Procedure o Roles/Responsibility o Organization structure/Group Working	Change Management Requirement Report & strategy
2.9	Analysis and Design Phase closure	Phase Sign Off
3.0	**BUILDING AND TESTING**	
3.1	The supplier shall identify, design and develop those components of the functionalities.	Bespoke Development Plan
3.2	SI shall provide the design of the bespoke component together with its schedule for development. The development of the bespoke component will however be under taken only after its approval by the HPU.	Bespoke Design documents
3.3	SI shall provide the source code together with complete documentation for such bespoke component of the solution.	Bespoke Development Source code
	Interfaces	
3.4	Provide necessary interface specifications	Integration & Interface specification
	Authorization security and access control	
3.5	The SI shall assist HPU in formulating appropriate security/ authorization, control policy to prevent unauthorized access to programs, data, screens and outputs.	Authorization, Security And Access Control Specification
3.6	Shall build the prescribed access right & control mechanism into the ERP system.	Demonstration Report
	Training	
3.7	Identify training requirement for various levels of employees of HPU (in consultation with HPU).	Training Requirement Report
3.8	Design training modules, prepare and supply study materials including audio-visual contents of the training and impart training at various levels. (In consultation with HPU).	Training Curriculum
3.9	Train the end users of HPU	Training schedule & Completion Report

3.10	The SI shall plan and carry out comprehensive tests of all the modules and carry out corrections based on test results and feed back. Quality review group shall be involved in testing of each module and sub module and requisite interfaces. SI shall simulate full load and stress test.	Unit test report, Integration test report, Full Load, Stress Test Report and Sign Off
3.11	Prepare System Manual in adequate detail for use in the Central Computer Centre to enable trouble shooting by HPU‟s software personnel. The supplier will also prepare detailed User Manual for each function to enable the field level user to use system effectively. The User Manual must be exhaustive and shall contain detailed, step-by-step instruction for smooth access to, operations in and exit from the system.	System, User and other Manuals
3.12	Help desk setup	Functional help manual
3.13	Building and Testing Phase closure	Phase closure Sign Off
	PREPARATION FOR GO-LIVE	
	Audit and Quality Control	
4.1	SI shall submit the standard parameters for auditing and quality control of the system to be provided by standard enterprise product vendor and demonstrate their effectiveness to the Quality review group.	Quality Audit acceptance
	Data Migration	
4.2	The SI shall develop the templates and facilitate the extraction, transformation & loading/ migration of data from the legacy systems and other electronic data of the required period as specified by HPU	Data Migration Methodology and Completion report
4.3	Extract the data from the legacy systems as per the cut off strategy into the format as required by the system	Functional Specifications for Upload programs
4.4	The supplier is to ensure that the system conforms to the purchaser's requirement set forth in the functional requirement	System quality assurance Undertaking
4.5	If, for reasons entirely attributable to the SI, the ERP system does not conform to the Scope of the Work or does not conform to all other aspects of the Contract, the SI shall at its cost and expense make such changes, modifications, and/or additions to the system as may be necessary to conform to the Scope of Work and meet all functional and performance standards.	Action taken Report

	Disaster Recovery and Back-up policy	
4.6	The SI shall formulate an effective Back-Up strategy and Disaster Recovery Plan and advice on Business Continuity Requirements.	Back Up Strategy And Disaster Recovery Plan
4.7	The SI shall formulate an effective plan for failover system to ensure business continuity requirement.	Fail over system plan
	GO LIVE AND SUPPORT	
5.1	Commencement of commercial transaction on the ERP system.	Go Live Sign Off
5.2	For attending to the problems occurring on day to day basis, the SI shall provide hand holding service (Post Go- live Support) on-site for a period of 3 months from the date of Go-live.	Action taken report
5.3	Customization Training to Core Team	Customization Training Sign Off
5.4	Extended Support: The SI shall continue to provide Extended Hand Holding services on site (at the discretion of the purchaser) for an additional period of 3 months after signing of Stabilization Acceptance.	Action taken report
5.5	Closure of the Project	Project Closure Sign Off

All the deliverables mentioned above should be submitted at least in two hard copies & two soft copies in CD-ROM.

Indicative not exhaustive list of User Cases

Development of Web Portal

- dashboards for decision makers, teachers, principals, university staff
- dashboards for administrators with different access privileges.
- dashboards for students
- dashboards for College Teachers, Principals

Student Registration & Admission Management

- online application forms for admission for Graduation programs
- online implementation of Choice Based Credit System (CBCS)
- The system to enable students to upload documents, select courses by category and pay fees online.
- System will generate a registration number upon successful registration.

Fee Module

- To enable administrators to implement fees based on course category, student category and some other criteria.
- The ability for students to pay fees online through net banking, debit cards, credit cards and challan.

Examination & Evaluation Management (CBCS System for Graduation System)

- Ability to register for exams online.
- Colleges will have the ability to verify student forms and generate exam roll numbers. Teachers in colleges will have the ability to enter awards for internal assessment and term end examination.
- Data entry operators in evaluation centres will have the ability to enter marks and attendance for students online.
- Principals, Evaluation Centre heads and University officials will have the ability verify awards.
- System will have complex logic to calculate student grades and CGPA. Students will have the ability to view relevant information online.
- System will also have the ability generate various reports such as admit cards, cut lists, signature lists, history sheets and other reports needful for various purposes. The system should take care of the management of all pre and post examination process.

Admission in Colleges

- The system should take care the admission process of all the colleges and a College Portal is to be provided so that the information passed onto university should be on the same format and pattern.

Pre-Admission, Admission & Online Counseling

- Admission Application Forms online and offline
- Student Admission System, Cut List, Admit Cards etc.
- Entrance Test Evaluation using OMR (Already in Place, Interface Required)

Examination Modules (University &Affiliated Colleges)

- Conduct of Examinations
- Evaluation Process, Students Award Lists /Answer Sheets Management.
- Result Processing & Management
- Re-evaluation Process
- Certificate Verification/Duplicate Certificates/Transcripts/Attestation

HRMS & Establishment

- Recruitment process
- Position Management
- Personnel Administration
- Benefits Administration

Finance Accounting and Budgeting.

- Grants Section
- Contingency Section
- Student Section
- Fee Section
- Medical Reimbursement/Scholarship Section
- Remuneration and TA Section
- CPF, GPF and Pension Section
- Budget Section

Payroll Management

- Salary computation and generation of pay bills and pay slips.
- Generation of text file submitting to University banks in order to automatically update employees accounts.
- Pension calculation of retired employees.
- Arrear calculations/Preparation of deductions.
- Online access to old salary records and other relevant information.

Tax Management

- Income Tax calculation, other Taxes etc.
- Generation of various forms (Form-16 etc)

University Departments and Regional Campuses

- Registration and Eligibility
- Centralized Time Table.
- Online SMS Service

File Tracking System

- File Tracking module

Placement Cell

- Campus Placement Automation.
- Alumni System

Library Management System

- Acquisition System
- Catalogue System
- Circulation system
- Stock Verification
- Serial Control
- Thesis, Rare Book & Manuscript System

Vehicle Management

- Vehicle Master
- Pick Up Points
- Vehicle Operator Details
- Vehicle Maintenance

Enquiry/ Help Desk Management System

- Enquiry and Help Desk Web-kiosks Systems & Student Services.
- Personal /Academic Information

Academic Staff College

- To conduct Refresher Courses and GOC.
- To conduct Short Term Courses.
- To conduct Interaction Programmes.

Dispensary Management

- Doctor/Patient Management Module
- Inventory Management of Medicine/Medical Equipment

Dean Colleges Cum Dev Council(CDC)

- Inspection/Approval of New Colleges/ Teaching Staff.
- Capacity Enhancement Centre.

3.15. Dean Student Welfare

- Students Welfare /Extra-curricular Activities/Schemes

Chief Warden Office

- Hostel management

- Issue of Student ID/Hostel Allotment

Guest House

- Rooms bookings.
- Hospitality arrangements.

The Core Modules required in University ERP System: -

The whole Project is divided into four Phases as Phase I, Phase II, Phase III and Phase IV and is being undertaken as per priority and financial constraints. **The phase wise costing may be asked and the bidder will be selected as per the L1 in total project cost**. The university has a right to opt for partial Phase wise order or may opt for all the Phases in a single Go. Further university has a right to drop any Phase as per financial constraints.

Phase I: Examination System and Student Life Cycle

- Development of Web Portal for Students & Colleges
- Registration and Eligibility
- Online Student Registration (UG/PG) & Admission in Colleges
- Conduct of Examinations, Evaluation Process, Result Processing & Management
- Examination & Evaluation Process (CBCS System for Graduation System)
- Admission in University, Online Application Form with a provision of Online Entrance Test for Competitive Test and Merit based courses
- Course Wise Online Counselling
- Fee Management / Online Payment Gateway
- Training For Users (University & Colleges)
- Data Migration for existing Software Application

Phase II: Finance Management and Administration

Finance Management

- Financial Accounting, Grants, Contingency, Student, Fees Section
- Budget Section
- Medical Reimbursement/Scholarship Section
- Remuneration and TA/DA/LTC/Home Town Section
- CPF, GPF, CPS/NPS and Pension Section
- Payroll Management, Tax Management, Income Tax calculation, other Taxes etc.
- Payment gateway design/Development

Administration

- VC, Registrar Office
- Establishment
- Web Portal of Employees
- Academic
- GAD
- Administration Offices including Statutory Offices
- Important Meetings as FC, EC, Court etc.
- Notices, Circulars etc.

Chief Warden Office

- Hostel management
- Issue of Student ID/Hostel Allotment
- Mess Management

File Management/ File Tracking System

Enquiry/ Help Desk Management System

- Enquiry and Help Desk Web-kiosks Systems & Student Services.
- Personal /Academic Information

Training for University Staff

Phase III: Faculties, Deans, Institutes & Library

University Departments, ICDEOL and Regional Centre

- Deans offices of Different Faculties
- Department/Institute /associated college profiling of courses, faculty, research areas, research papers, research projects, SAP FIST,e-resources, assignment tracking, achievements, innovations, quality assurance initiatives, notice board, picture gallery etc. and other Funding Agencies
- UIIT, UCBS, UILS, College of Evening Studies, ICDEOL
- Centralized Time Table to manage Choice Based Credit System (CBCS)
- Online SMS Service

Library Management System

- Acquisition System
- Catalogue System
- Circulation system
- Stock Verification
- Serial Control
- Thesis, Rare Book & Manuscript System
- Integration with Shodh Ganga

Dean Colleges cum Dev Council (CDC)

- Inspection/Approval of New Colleges/ Teaching Staff.
- Capacity Enhancement Centre.
- Students Welfare /Extra-curricular Activities/Schemes

Dean of Studies

- The Group-wise Merit Scholarships
- Research Scholar fellowships
- Dean's Meeting etc.

Dean Student Welfare

- Students Welfare /Extra-curricular Activities/Schemes
- Publication of students magazine
- Student election management
- Students educational tours felicitation
- Amalgamated funds management system
- Event management requests on the campus
- University cultural events (Youth festivals etc.)

Director Sports

- Management of sports infrastructure

- Selection of sports persons for various sports for university, state, national and international events
- Coaching management for various sports
- Providing sports facilities and facilitating participation in sports events.

UGC Human Resource Development Centre

- To conduct Refresher Courses and Orientation Courses.
- To conduct Short Term Courses.
- To conduct Interaction Program.

Pre-Examination Coaching Centre

- Admission to various short term courses for competitive examinations, UGC CSIR NET/SLET
- Management of coaching schedules for various programs
- Arrangement of resource persons
- Holding mock tests for various examinations
- Management of Hostel of the Centre
- Disbursement of TA/DA to participants belonging to scheduled categories

Dean, Planning & Teachers' Matters'-cum-Planning & Development Office

- Preparation of Five Year Plan to be submitted to University Grants Commission, New Delhi
- Finalization of Plan Proposals of the Teaching Departments/Construction/ University etc.
- To allocate the funds received under the Plan Budget.
- Matters concerning UGC and State Plan Grant.
- Implementation & Monitoring the progress of various schemes approved by the UGC.
- To conduct meeting of the Academic and Planning Board and Unassigned Grants Committee for allocation of funds received from UGC.
- To provide National and International Travel Grant to the teachers' to attend Seminar/Workshop/Symposia, Publication Grant etc.
- All matters concerning financial assistance for establishment of project/proposal of the teacher correspondence thereof with UGC/ State/ Government of India etc

Internal Quality Assurance Cell

- To convene the meeting of Internal Quality Assurance Cell regularly.
- Preparation and Submission of Annual Quality Assurance Reports of Himachal Pradesh University to the National Assessment and Accreditation Council (NAAC).
- Initiation of various activities under quality assurance programmes.
- To ensure the implementation of decisions taken in the meeting of IQA Cell.
- Development of academic quality radars.
- Correspondence with NAAC w.r.t. the Re-Accreditation (3rd Cycle) of Himachal Pradesh University.
- Preparation of Self Study Reports for Re-Accreditation purpose.
- Collection of citation data of HPU Faculty & Research Scholars.

Phase IV: Other Activities

Store Purchase Office

- Store inventory management system
- E-Tender management system
- Write off management system
- Issue of no objection certificates

Public Relations Office

- Publication of tender notices, recruitment notices, admission notices etc.
- Publication of University News Letter
- Preparation and printing of Annual report and other such reports to be placed before statutory authorities of the university
- Photo archiving
- Press releases and reports
- Archiving of press reports in print media, electronic media etc.
- Keeping presence of University on Social media
- Publication bureau of the University

Estate Office

- Management of estates of the university (academic infrastructure, allotment of space for teaching departments, research facilities, administrative spaces, residential spaces, hostels etc.)
- Maintenance of revenue records pertaining to university estates on the campus and regional campuses.
- Legal disputes related to estates of university.

Construction Wing

- Construction Section
- Design Section
- Architect Section
- Complaint Section/Tracking System
- Inventory

Vehicle Management

- Vehicle Master
- Pick Up Points
- Vehicle Operator Details
- Vehicle Maintenance

Placement Cell

- Campus Placement Automation.
- Alumni System

Dispensary Management

- Doctor/Patient Management Module
- Inventory Management of Medicine/Medical Equipment

Faculty House

- Rooms bookings.
- Hospitality arrangements
- Tariff management
- Accounts management

Campus Wide Optical Fiber Network Management

Security

Canteen

MAJOR PARTS OF THE REQUEST FOR PROPOSAL

The Major activity is to develop and prepare the Application Software but this invitation for bidding is for undertaking the following activities (grouped as Schedule A, B and C respectively) according to the requirement of the University:

	Schedule Name	Activities
Schedule A	Application Software, Servers, O.S. DBMS etc. will be hosted at SDC, DIT, Shimla.	Application Software will be installed in the University. Supply, Installation, Implementation, Integration, Configuration, Commissioning and Maintenance of the System and hosting will be at DIT data centre and the other details will be as per 3.3 DIT SDC space and Expenditure
Schedule B	Application Software Servers, O.S. DBMS etc	Application Software will be installed in the University. Supply, Installation, Implementation, Integration, Configuration, Commissioning and Maintenance of the System and hosting will be done at the cloud of the company or third party as the case may be. MOU is to be signed with the university for the confidentiality of the data.
Schedule C	Servers, O.S. DBMS will be hosted at the University. The Company will setup data centre for the university and its complete management and maintenance will be the sole responsibility of the company.	Modular Data Centre Servers including Operating Systems Storage Backup Software & Related Accessories DBMS Firewall Load balancer Switches Servo Stabilizer, Genset The complete expenditure and related accessories will be mentioned including manpower.

Note: The bidders are required to have adequate redundancy while finalizing and sizing their hardware requirements such as Web Servers(2), Database Servers(2) and Application Servers(2) etc. in order to have maximum desired uptime. It is the responsibility of the bidder that all requirements should be planned and confirmed in such a manner so that no problem will be encountered at a later stage.
For Schedule A, B & C the requirements and the specifications of Hardware items is given as under so as to have minimum benchmark:

MODULAR DATA CENTRE

SCOPE OF WORK

Supply: Supply of Modular Data Centre including peripherals, completely described in the BID, and their installation, maintenance at on-site/off-site locations provided by the bidder.

Installation:

Fixing and setting up the data centre at the HPU.

Configuring all the software associated with the data centre management.

User training to the IT staff of the HPU

Uptime: The Bidder will ensure an uptime of 97% for the Data Centre.

Reliability: The equipment offered should be robust and reliable.

AMC: The technical maintenance of the Data Centre will be the responsibility of the Bidder. The charges for such AMC shall be borne by the University after the expiry of three year standard warranty only.

Technical specification for Integrated Modular Data centre infrastructure.

The intelligent integrated/inbuilt infrastructure, standalone system shall be in adherence to TIA 942, Uptime Institute guidelines thus shall be composed of multiple active power and cooling distribution paths, but only one path active. Shall have redundant components.

The Intelligent Integrated Infrastructure essentially includes internal redundant or backup power supplies, environmental controls (e.g., precision air conditioning, fire suppression, smoke detection, Water leak detection, motion sensor, humidity sensor etc), security devices etc. Critical systems like UPS and Precision Air-conditioning system will have N+N topology.

The Intelligent integrated infrastructure shall be having min 100 U usable space to accommodate IT and network equipment & devices.

The Intelligent integrated infrastructure would provide much functionality and some of the key functionalities are Cold aisle & hot aisle both containment, insulation, email alert and single point of service.

The Intelligent integrated Infrastructure shall have following components:-

Precision Air conditioner with variable capacity digital scroll compressor, heater and humidifier – 2 numbers 20KW (in N+N redundancy) to cater 20 KW of IT load, cooling unit temperature and humidity alert should be made available through email alert.

Rack mountable UPS in N+N configuration with power factor up to 0.9 & efficiency more than 92% ~94%. UPS capacity should be 20KVA (2 numbers in N+N redundancy) UPS should be mounted inside the cabinet only. In case of alert related to UPS there should be email alert.

Scope includes battery backup for 1 hr for continuity of IT equipment.

Inbuilt dedicated fire suppression system; Novec 1230 Gas based fire suppression system as per NFPA guidelines.

42 U racks of dimension 600 mm x 1000 mm (Depth* Width) 3 numbers.

Integrated Biometric access control system

Rack mount PDU of type IEC19/13, Each rack shall have two such PDU’s

Electrical system with essential MCB/MCCB.
Automatic door opening in case of both cooling unit failure.
Intelligent integrated infrastructure would have provision to add an extra rack in future. It should be flexible, adaptable, controllable infrastructure.
All the critical component like UPS, Precision air conditioner, RDU (Rack Data Unit) must be from single OEM.
OEM for 'Integrated Data centre infrastructure' must have build-up experience of a certified tier-3 Data centre.

SERVERS

SCOPE OF WORK
Supply: Supply of the servers including peripherals, completely described in the BID, and their installation, maintenance at on-site/off-site locations provided by the HPU.
Installation:
Fixing and setting up the servers on the racks of data centre at the HPU.
Installing the Operating System.
Configuring all the software associated with the server management.
User training to the IT staff of the Institute
Uptime: The Bidder will ensure an uptime of 99% for the Servers deployed by them.
Reliability: The equipment offered should be robust and reliable.
AMC: The technical maintenance of the Servers will be the responsibility of the Bidder. The charges for such AMC shall be borne by the University after the expiry of three year standard warranty only.

SPECIFICATIONS

Blade Chassis

Item	Description	No.
Blade Chassis	Solution to house the required number of blade servers in smallest number of enclosures. Industry standard suitable for housing in Standard Server Racks. Should have support for 7 full height or 14half height blades in the same enclosure, occupying a max of 10U rack height	
	Same enclosure should support Intel Xeon / AMD / RISC / EPIC based blades	
	Should support Hot Pluggable & Redundant Management Modules.	
	Should provide an highly reliable and high performance mid-plane/back-plane design in the blade enclosure. Should provide detailed technical information.	
	Should be able to accommodate the blade servers mentioned in the sections below in the proposed blade enclosures. The proposals must offer the most dense packaging possible for the blade servers in the enclosure and maximum headroom for future expansion in the offered enclosures.	

	Support simultaneous remote access for different servers in the enclosure.	
Interconnect	Should support simultaneous housing of Ethernet, FC, SAS interconnect fabrics offering Hot Pluggable & Redundancy as a feature	
I/O Modules	Converged Switch	
Converged Switch	Chassis should be supplied with redundant internal I/O connectivity which supports 1G, 10G Ethernet, 8Gbps Fibre Channel and 10G FCOE uplink ports.	
Power Supply	The enclosure should be populated fully with power supplies of the highest capacity available with the vendor. Power supplies should support N+N as well as N+1 redundancy configuration, where N is greater than 1. Should offer choice of a single phase or 3 phase power subsystem for flexibility in connecting to data centre power enabled with technologies for lower power consumption	
Cooling	Each blade enclosure should have a cooling subsystem consisting of redundant hot pluggable fans or blowers enabled with technologies for improved power consumption and acoustics	
Warranty	3 years comprehensive warranty, 24 x 7 support with 4 hrs response time.	
System Software	Management/controlling softwares have to be from the OEM itself.	
Deployment	Must have the capability of deploying multiple Operating Systems on the servers simultaneously and also be able to schedule deployment as and when needed.	
	Must have the capability of capturing and deploying OS images.	
	Must have the capability of configuring the hardware and changing system settings such as RAID level before the deployment of the Operating System. Must also have the capability of capturing the hardware settings and replicating it across servers.	
Remote Management	Must have a real time Virtual KVM functionality and be able to perform a remote Power sequence. Must provide both Java & Java-free browsing options.	
	Must have the ability to map the remote media to the server. Also must have the ability to transfer files from the user's desktop/laptop folders to the remote server with only the network connectivity.	
	Must have the ability to capture the video sequence of the last failure and the boot sequence and also playback the video capture	
	Must have the ability for multiple administrators across remote locations to collaborate on the remote session even in a server (with a maximum of 4 sessions)	

Performance Management & Alerting	Must have the ability to perform a hardware level (32 bit & 64 bit) measurement. Must also monitor CPU, I/O, Memory, Storage & Network	
	Must have the ability to provide comprehensive recommendations for the issue and the resolution.	
	Must have the ability to automatically trigger events and alerts based on performance issues or thresholds set	
Integration with Enterprise Management software	Must have the ability to get event and traps from the Data Center equipments. Also must integrate with the higher level management such as Open View, Tivoli & UniCenter. Must also have the ability to send the alerts directly to the vendor via a secure connection for a quick fix.	
Contract & Warranty Management	Must be able to track warranty information of servers and also send alerts when the warranty is about to expire. Must also be able to keep track of all hardware, firmware and basic software and generate comprehensive reports for the same. It must also provide the ability to automatically mail the report as scheduled.	
Power Management	Must be able to show the actual power usage and actual thermal measurements data of the servers. Must also show a historical trend of power and temperature and generate comprehensive power reports.	
	Must be able to automatically shutdown the servers if required, based on user policies and schedules.	
	Must be able to dynamically optimize the power usage and performance based on server workload policy.	
	Must be able to cap the power of individual server or a group of servers. Must be able to intelligently assign the power to the appropriate server in the pool based on policy settings.	
	Must be able to calculate and forecast the power costs based on the pre-defined cost parameters.	
	Must provide a fully Automated Vulnerability assessment for Microsoft & Redhat Operating Systems. Must be able to generate comprehensive Vulnerability reports.	

Servers

Blade Server:		
Item	Description of Requirement	Qty
CPU	two numbers of latest generation Intel 12 Core E5-2670v3 (2.3 GHz/12 Core/30MB Cache) processors	
CPU L3 CACHE Memory	30MB	
Motherboard	Intel® C610 Series Chipset	

Memory	128GB DIMMS scalable to at least upto 512GB, using DDR4 Load Reduced DIMM (LRDIMM) memory modules. Should be capable of identifying and reporting whether genuene OEM memory is installed for system reliability. Each LRDIMM should work at 2133MHz, 1. 2V even after populating all the DIMMs in the channel.	
Memory Protection	Advanced ECC with multi-bit error protection and memory online spare mode	
Hard disk drive with carrier	2 * 600GB hot plug 6G SFF SATA SSD drives. The drive should have intuitive icon based display along with "DO NOT REMOVE" caution indicator that gets activated automatically in order to avoid data loss/downtime due to wrong drive removal.	
Storage Controller	Integrated PCIe 3.0 based 12G SAS Raid Controller with RAID 0, 1 with 1GB of Flash backed write cache onboard.	
Networking features	Dual Port 20GbE Converged Network Adaptor which supports partitioning up to 3* Ethernet and 1* FC/iSCSI HBA ports per 20Gbps port	
Interfaces	Minimum of 1 * internal USB 3.0 port and 1* internal SDHC card slot	
Blade Server Connectivity to SAN	Should be capable of supporting 16 Gbps Dual port Fiber Channel HBA internal to the Server Blade.	
Bus Slots	Minimum of 2Nos of 3.0 PCIe x16 based mezzanine slots supporting Converged Ethernet, Ethernet, FC adapters, SAS and IB adaptors	
Graphics	Integrated G200eh video controller	
Industry Standard Compliance	ACPI 2.0 Microsoft® Logo certifications USB 3.0 Support IPMI 2.0 Secure Digital 2.0 TPM 1.2 Support IEEE (specific IEEE standards depending on Ethernet adapter card(s) installed) Advanced Encryption Standard (AES) Triple Data Encryption Standard (3DES) SNMP SSL 2.0 DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP) Active Directory v1.0 PCIe 3.0 ASHRAE A3	

Embedded system management	Should support monitoring ongoing management, service alerting, reporting and remote management with embedded Gigabit out of band management port Server should support configuring and booting securely with industry standard Unified Extensible Firmware System should support REST ful API integration System management should support provisioning servers by discovering and deploying 1 to few servers with Intelligent Provisioning System should support embedded remote support to transmit hardware events directly to OEM or an authorized partner for automated phone home support	
Security	Power-on password Administrator's password Keyboard password (Quick Lock) Out of band remote management Chipset with: SSL encryption Secure Shell version 2 Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser, CLP and XML scripting interface AES and RC4 encryption of video External USB port enable/disable Network server mode Serial interface control TPM (Trusted Platform Module) 1.2 option Advanced Encryption Standard (AES) Intel® Advanced Encryption Standard-New Instructions (AES-NI) FIPS 140-2 Level-2 certification pending	
OS Support	Microsoft Windows Server Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) Canonical Ubuntu Oracle Solaris VMware Citrix XenServer	
Secure encryption	System should support Encryption of the data on both the internal storage and cache module of the array controllers using encryption keys. Should support local key management for single server and remote key management for central management for enterprise-wide data encryption deployment.	
Warranty	3 year 24x7 4Hour response comprehensive warranty	
Provisioning	Essential tools, drivers, agents to setup, deploy and maintain (not the OS) the server should be embedded inside the server. There should be a built -in update manager that can update these tools online.	
Remote Management	System remote management should support browser based Graphical Remote Console along with Virtual Power button, Remote boot using USB / CD/ DVD Drive. It should be capable of offering upgrade of software and patches from a remote client using Media / image/folder; It should support server power	

	capping and historical reporting and should have support for multifactor authentication.	
	Dedicated remote management port should be provided and it should be able to download the firmware from the website directly or from internal system. Server should support automated firware update.	
	Server should support agent less management using the out-of-band remote management port. Remote management port should have 4GB NAND flash with 1GB available for user access. NAND flash should be used for keeping system logs and downloading firmware from HP website or internal repository	
	The server should support Active Health System which monitors and records continuously every hardware change, every configuration change, temperature and voltage variations, and alerts changes in the server hardware and system configuration without impacting server performance. This assists in diagnosing problems and delivering rapid resolution when system failures occur.	
	Applications to access the server remotely using popular handheld devices based on Android or Apple IOS should be available	
	Should support managing multiple servers as one via Group Power Control Group Power Capping Group Firmware Update Group Configuration Group Virtual Media Group License Activation	
	Should support remote console sharing upto 6 users simultaneously during pre-OS and OS runtime operation, Console Replay that captures and stores and supports replay of the console video during a server's last major fault or boot sequence, Microsoft Terminal Services Integration, 128 bit SSL encryption and Secure Shell Version 2 support. Should provide support for AES and 3DES on browser Should provide remote firmware update functionality Should provide support for Java free graphical remote console.	
Server Management	Software should support dashboard view to quickly scan the managed resources to assess the overall health of the data center. It should provide an at-a-glance visual health summary of the resources user is authorized to view.	
	The Dashboard minimum should display a health summary of the following: • Server Profiles • Server Hardware • Enclosures • Logical Interconnects • Appliance alerts	
	The Systems Management software should provide Role-based	

	security	
	Software should support search for resource-specific information such as specific instances of resource names, serial numbers, WWNs, IP and MAC addresses to help manage infrastructure better	
	Management software should support integration with popular virtualization platform management software like vCenter, SCVMM and RedHat RHEV	
	Should help provide proactive notification of actual or impending component failure alerts on critical components like CPU, Memory and HDD.	
	Should provide an online portal that can be accessible from anywhere. The portal should provide one stop, online access to the product, support information and provide information to track warranties, support contracts and status. The Portal should also provide a Personalised dashboard to monitor device heath, hardware events, contract and warranty status. Should provide a visual status of individual devices and device groups. The Portal should be available on premise (at our location - console based) or off premise (in the cloud).	
	Should help to proactively identify out-of-date BIOS, drivers, and Server Management agents and enable the remote update of system software/firmware components.	
	The Server Management Software should be of the same brand as of the server supplier.	

Database Server

Blade Server:		
Item	Description of Requirement	Qty
Processor	Latest generation x86-64 processor , 2 No.s x Intel® Xeon® E5-4620v3 (2.0GHz/10-core/25MB/105W Processor, based on Intel C610 series chipset.	
Memory	256 GB Memory scalable to at least upto 1TB, using DDR4 memory modules.	
Memory Protection	Advanced ECC Memory Online Spare Mode (Rank Spare Mode).	
Hard disk drive with carrier	2 * 300 GB 10K RPM hot plug SFF SAS drives.	
Storage Controller	Integrated PCIe 3.0 based SAS Raid Controller with RAID 0, 1 with 1GB of Flash backed write cache.	
Networking features	2* Dual port 10Gbps ethernet ports with total 4 ports	
Interfaces	Minimum of 1 * internal USB 3.0 port and 1* internal SDHC card slot	

Blade Server Connectivity to SAN	Should be capable of supporting a 16Gbps Dual port Fiber Channel HBA internal to the Server Blade.	
Bus Slots	Minimum of 3Nos of PCIe 3.0 based mezzanine slots supporting Ethernet, FC adapters, Infiniband and SAS based adaptors	
Graphics	Integrated G200	
Industry Standard Compliance	ACPI 2.0 Microsoft® Logo certifications USB 3.0 Support IPMI 2.0 Secure Digital 2.0 TPM 1.2 Support IEEE (specific IEEE standards depending on Ethernet adapter card(s) installed) Advanced Encryption Standard (AES) Triple Data Encryption Standard (3DES) SNMP SSL 2.0 DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP) Active Directory v1.0 PCIe 3.0 ASHRAE A3	
OS Support	Microsoft Windows Server Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) VMware	
Warranty	3 year 24x7 4Hour response comprehensive warranty	
Provisioning	Essential tools, drivers, agents to setup, deploy and maintain the server should be embedded inside the server. There should be a built -in Update manager that can update firmware of system by connecting online.	
Remote Management	System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive. It should be capable of offering upgrade of software and patches from a remote client using Media/image/folder; It should support server power capping and historical reporting and should have support for multifactor authentication.	
	Out of band remote management port should be provided and it should have atleast 4GB of NAND Flash to download the firmware from the website directly or from internal system. Server should support automated firmware update.	
	Server should support agent less management using the out-of-band remote management port.	
	The server should support Active Health System which monitors and records changes in the server hardware and system configuration. It assists in diagnosing problems and delivering rapid resolution when system failures occur.	

	Applications to access the server remotely using popular handheld devices based on Android or Apple IOS should be available	
	Should support remote console sharing upto 6 users simultaneously during pre-OS and OS runtime operation, Console Replay that captures and stores and supports replay of the console video during a server's last major fault or boot sequence, Microsoft Terminal Services Integration, 128 bit SSL encryption and Secure Shell Version 2 support. Should provide support for AES and 3DES on browser Should provide remote firmware update functionality Should provide support for Java free graphical remote console.	
Server Management	The Systems Management software should provide Role-based security	
	Should help provide proactive notification of actual or impending component failure alerts on critical components like CPU, Memory and HDD. Should support automatic event handling that allows configuring policies to notify failures via e-mail, pager, or SMS gateway or automatic execution of scripts.	
	Should provide an online portal that can be accessible from anywhere. The portal should provide one stop, online access to the product, support information and provide information to track warranties, support contracts and status. The Portal should also provide a Personalized dashboard to monitor device heath, hardware events, contract and warranty status. Should provide a visual status of individual devices and device groups. The Portal should be accessible on premise (at customer location - console based) or off premise (using internet).	
	Should support scheduled execution of OS commands, batch files, scripts, and command line apps on remote nodes	
	Should be able to perform comprehensive system data collection and enable users to quickly produce detailed inventory reports for managed devices. Should support the reports to be saved in HTML, CSV or XML format.	
	Should help to proactively identify out-of-date BIOS, drivers, and Server Management agents and enable the remote update of system software/firmware components.	
	The Server Management Software should be of the same brand as of the server supplier.	

Storage

Parameter	Functionality
Converge / Unified Storage	Offered Storage array shall be a true converge / unified storage with a single Microcode / operating system instead of running different Microcode / Operating system / Controllers for File, block and object services respectively.
Operating System & Clustering Support	The storage array should support industry-leading Operating System platforms including: *Windows Server 2008, Windows 2012*, VMware, Sun Solaris, HP-UX, IBM-AIX, OpenVMS and Linux.
Capacity & Scalability	1. The Storage Array shall be offered with 5.5 TB RAW using min 10 SSD Disk and 21.5 TB RAW on SAS DISK 2. Storage shall be scalable to minimum of 400 TB using 1.8 TB SAS

	drives. 3. Storage should support at least 140 nos of SSD Disk without controller upgrade
Cache	1. Offerd Storage Array shall be given with greater than 40 GB or more cache in a single unit. 2. Cache shall be used only for Data and Control information. OS overhead shall not be done inside cache. 3. Offered Storage array shall also have additional support for Flash Cache using SSD / Flash drives. Both File services as well as Block operations shall be able to utilize flash cache. Minimum of 500GB Flash cache shall be supported. 4. If Flash cache is not supported inside the storage array then vendor shall ensure that offered storage array shall be scalable to minimum of 128GB DRAM cache without any replacement or upgrade of controllers.
Processing Power	1. Offered Storage architecture shall be based on purpose built ASIC, XOR engine so that there shall be no load on the storage CPU during Raid Parity calculations. 2. In case vendor doesn't have above ASIC functionality then additional 16GB read and write cache shall be provided per controller pair to balance the performance.
Architecture & Processing Power	Controllers shall be true active-active so that a single logical unit can be shared across all offered controllers in symmetrical fashion, while supporting all the major functionalities like Thin Provisioning, Data Tiering etc..
No Single point of Failure	Offered Storage Array shall be configured in a No Single Point of configuration including Array Controller card, Cache memory, FAN, Power supply etc.
Disk Drive Support	Offered Storage Array shall support 6Gbps dual-ported 300 / 600 / 900 / 1200GB hot-pluggable Enterprise SAS hard drives, Minimum of 400GB SSD Drives along with SAS MDL 1TB / 2TB / 3TB / 4TB drives.
Raid Support & Virtualization	1. Offered Storage Subsystem shall support Raid 0, 1 , 1+0, 5 and Raid 6. 2. Offered storage array shall have native virtualization support so that Raid 1. Raid 5, Raid 1+0, Raid 6 can be carved out from a logical space instead of dedicating separate physical disks for each application. 3. Every supplied disk shall be able to participate into multiple and different raid sets simultaneously. 4. In case vendor does not have above functionality, then 20% additional raw capacity shall be provided for each type of disk to balance out the capacity utilization.
Data Protection	Incase of Power failure, Storage array shall have de-stage feature to avoid any data loss.
Protocols	Offered Storage array shall support all well-known protocols like FC, ISCSI, FCOE, SMB 3.0, NFS V4, NDMP etc.

Host Ports and Back-end Ports	1. Offered Storage shall have minimum of 8 host ports for connectivity to servers running at 8Gbps speed for FC and 4 nos of ISCSI at 10 Gbps. 2. Offered storage shall have two additional IP ports for the the storage based replication. 3. Offered storage shall have 16 number of SAS Back-end lanes running at 6Gbps speed.
Global Hot Spare	1. offered Storage Array shall support distributed Global hot Spare for offered Disk drives. 2. Global hot spare shall be configure as per industry practice.
Performance and Quality of service	1. Shall have capability to use more than 30 drives per array group or raid group for better performance. 2. Storage shall be provided with Performance Management Software. 3. Offered storage array shall support quality of service for critical applications so that appropriate and required response time can be defined for application logical units at storage. It shall be possible to define different service / response time for different application logical units. 4. Quality of service engine shall allow to define minimum and maximum cap for required IOPS / bandwidth for a given logical units of application running at storage array. 5. It shall be possible to change the quality of service Response time, IOPS, bandwidth specification on basis of real time.
Thin Provisioning and Space Reclaim	1. Offered storage array shall be supplied with Thin provisioning and Thin Re-claim to make the volume thin for an extended period of time for complete array supported raw capacity. 2. Thin Re-claim (Zero Page reclaim) inside storage subsystem shall be automatic in nature and there shall be no need to run any utility inside storage for same. 3. Thin Re-claim inside storage shall not cause any overloading of Storage CPU and shall be able to claim the Zero pages even during peak load without any performance impact 4. For effective capacity utilization, thin reclaim maximum unit shall be 16KB. Vendor shall provide the documentary proof for same. 5. Offered storage array shall be tightly integrated with VMware so that Eager zero disks layout can be used with thin provisioning and thin re-claim.
Maintenance	Offered storage shall support online non-disruptive firmware upgrade for both Controller and disk drives.
Snapshot / Point in time copy / Clone	1. Offered Storage shall have support to make the snapshot and full copy (Clone) on the thin volumes if original volume is created on thick or vice-versa. 2. The storage array should have support for both controller-based as well as file system based snapshots functionality (At-least 1024 copies for a given volume or a file store). 3. Storage array shall have functionality to re-claim the space from Thin Provisioned Deleted snapshot automatically. Vendors shall provision at-least 20% additional space over and above the actual requirements, if space re-claim from thin provisioned deleted snapshot is not possible automatically.

Quota Management and Antivirus Scanning	1. For file services operations, offered storage shall support both user level as well as file level hard and soft quota. 2. For file services operations, offered storage shall support integration with industry leading antivirus vendors like Symantec and MacAfee.
Storage Array Configuration & Management Software	1. Vendor shall provide Storage Array configuration and Management software. 2. Software shall be able to manage more than one array of same family.
Storage Tiering	1. Offered storage shall support dynamic migration of Volume from one Raid set to another set while keeping the application online. 2. For effective data tiering, Storage subsystem shall support automatically Policy based Sub-Lan Data Migration from one Set of drive Tier to another set of drive tier.
Remote Replication	1. The storage array should support hardware based data replication at the array controller level across all models of the offered family. 2. The Storage array shall also support three ways (3 Data Centers) replication to ensure zero RPO in native fashion without using any additional replication appliance. 3. Replication shall support incremental replication after resumption from Link Failure or failback situations.

Database Archival

Sno.	Item
1.	The data archival solution should provide an integrated platform for data management. The same platform should support optional features like – application decommissioning, test data management and data privacy
2.	The solution should support enterprise wide data sources like Oracle, SQL Server, Sybase etc.
3.	The solution should be supported on multiple platforms like Windows, AIX, Solaris, HP-UX, Linux etc.
4.	The solution should support a feature to group related tables in an archive definition. The tool should have the capability to identify linked tables and archive data from the linked tables at the same time
5	Solution must provides simultaneous access to current and archived data without making any application level code changes
	Solution must allow users to access archived data using their native application interface or enterprise reporting tools
6.	The solution should provide a feature to identify reference tables in an archive definition. The reference table should be archived fully, irrespective of transactional data in the other tables
7.	The solution should be able to identify relationships between tables by reading relational constraints as implemented in the database
8.	The solution should have the feature to define table relationships in the solution in case relational constraints are not implemented in the database. Such relationships should be logical in nature and not impact the application database in anyway
9.	The solution should provide the flexibility to defer or accept deletion of data from the production database after archiving activity

10.	The solution should have the capability to specify criteria for selection of data to be archived on one or multiple tables being archived
11.	The solution should have the capability to archive data to industry standard XML files and/or to a target database
12.	The archived data should be stored in a compressed format.
13.	The data archived in the XML files should be accessible to reporting and query purposes.
14.	The tool should provide ODBC/JDBC type of access to the data stored in the archive files. Also, data in the archive files should be accessible through SQL queries.
15.	The data in the archive files should be accessible to other applications and reporting tools
16.	The data in the archive files should be in a relationally intact form. The table relationships as they exist in the database should be available even in the archive database.
17.	The solution should support selective restore of data back from the XML file to a database
18.	The solution should support a tiered storage strategy for storing the archived data. The archived data files could be stored on secondary storage to achieve storage cost savings
19.	The solution should provide a way for queries to be executed to seamlessly fetch data from the tables in the database and the data in the archive files
20.	The tool should provide restore capabilities to a target environment different from the source environment.
21.	The solution should provide scheduling capabilities for the archive jobs
22.	The solution should have in-built features to enable users create an audit trail of the archive jobs
23.	The solution should provide flexibility in designing the data selection-traversal path amongst the tables that have been selected to be included in the archive data set.
	Test Data Management and Data Privacy
24	The solution should also have capabilities for test data management.
25	The solution should also have pre-built functions for data privacy. Data privacy functions for masking names, addresses, email addresses, credit card numbers etc.

Server Load Balancer

Architecture
Should be high performance purpose built hardware with multicore CPU support.
The appliance should have 8 GB RAM and 5 Gbps of system throughput to support multiple load balancing features and functions
Solid state drive (SSD) for high I/O performance and dual power supply support
USB based fast failover support for automated configuration synchronization and improved failover time as compare to traditional cluster
In order to meet high performance requirements load balancer must support virtual grouping (not clustering) of the appliances and must appear as single system.
Multiple appliances in virtual group/domain should allow administrator to configure one or more applications application (virtual services) across both physical appliances to meet high performance requirement
Load balancing features
Should able to load balancer both TCP and UDP based applications with layer 2 to layer 7 load balancing support

The appliance should support server load balancing algorithms i.e. round robin, weighted round robin, least connection, Persistent IP, Hash IP, Hash Cookie, consistent hash IP, shortest response, proximity, snmp, SIP session ID, hash header etc.
Should support Multi-level virtual service policy routing – Static, default and backup policies for intelligent traffic distribution to backend servers
Support for policy nesting at layer7 and layer4, solution should able to combine layer4 and layer7 policies to address the complex application integration.
Script based functions support for content inspection, traffic matching and monitoring of HTTP, SOAP, XML, diameter, generic TCP, TCPS. Load balancer should support ePolicies to customize new features in addition to existing feature/functions of load balancer
Traffic load balancing using ePolicies should support algorithms including round robin, least connections, shortest response, persistence ip, hash ip, hash ip and port, consistent hash ip and snmp
Should provide application & server health checks for well-known protocols such as ARP, ICMP, TCP, DNS, RADIUS, HTTP/HTTPS, RTSP etc..
IPv6 gateway and Application acceleration
Should provide performance optimization using TCP connection multiplexing, TCP buffering and IEEE 802.3ad link aggregation. Support for TCP optimization options including windows scaling, timestamp & Selective Acknowledgement for enhanced TCP transmission speed TCP optimization option configuration should be defined on per virtual service basis not globally.
Appliance should provide real time Dynamic Web Content Compression to reduce server load and solution should provide selective compression for Text, HTML, XML, DOC, Java Scripts, CSS, PDF, PPT, and XLS Mime types.
should provide advanced high performance memory/packet based reverse proxy Web cache; fully compliant with HTTP1.1 to enhance the speed and performance of web servers
Should provide support for cache rules/filters to define granular cache policies based on cache-control headers, host name, file type, max object size, TTL objects etc..
Should provide secure online application delivery.
Should support certificate parser and solution should integrate with client certificates to maintain end to end security and non-repudiation
The appliance should support Certificate format as "OpenSSL/Apache, *.PEM", "MS IIS, *.PFX", and "Netscape, *.DB".
Should support OCSP protocol to check the validity of the certificates online. Certificate bases access control, CRL's (HTTP, FTP, and LDAP) support.
Should provide full ipv6 support and OEM should be IPv6 gold-certified. OEM should be listed vendor for ipv6 phase-2 certification.
IPv6 gateway should provide compressive support for IPv6 functions to help with ipv4-to-ipv6 transition without business disruption and must provide support for dual stack, DNS64, NAT 64, DNS 46, NAT 46, IPv6 NAT
Should support various deployment modes for seamless integration including reverse proxy (IPv6 to IPv4, IPv4 to IPv6) and IPv6 to IPv6 transparent and reverse proxy mode.
Network and application security
Should support advance ACL's to protect against network based flooding attacks. Administrator should able to define ACL's rules based on connections per second (CPS) and concurrent connections (CC), cookie value.
Appliance should have security features like reverse proxy firewall, Syn-flood and dos attack protection

features from the day of installation.
Should support integrated network based firewall to protect against network based attacks; administrator should able to configure the security policies on per interface basis.
Proposed solution provide integrated WAF functionality to protect against layer7 attacks and should support deep packet inspection of HTTP & HTTPS traffic in reverse proxy mode
Application firewall should support built in rules to counter application attack, provision should be there to customize predefined application security rules. Should support all kind of attacks including OWASP top 10
WAF module should support both detection and prevention mode and policies should be enforced on per virtual services.
Clustering and failover
Should provide comprehensive and reliable support for high availability with Active-active & active standby unit redundancy mode
should support built in failover decision/health check conditions (both hardware and software based) including CPU overheated, SSL card, port health, CPU utilization, system memory, process health check and gateway health check to support the failover in complex application environment
Should have option to define customized rules for gateway health check - administrator should able to define a rule to inspect the status of the link between the unit and a gateway
Support for automated configuration synchronization support at boot time and during run time to keep consistence configuration on both units.
should support floating MAC address to avoid MAC table updates on the upstream routers/switches and to minimize the failover delay
Support for multiple communication links for real-time configuration synchronizations including HA group, gateway health check, decision rules, SSF sessions etc.. and heartbeat information
Clustering function should support IPv6 VIP's (virtual service) switchover
N+1 clustering support with active-active and active-standby configurations.
Management
Centralized management appliance should have extensive reporting and logging with inbuilt tcpdump like tool and log collecting functionality
The appliance should have SSH CLI, Direct Console, SNMP, Single Console per Cluster with inbuilt reporting.
Should support XML-RPC for integration with 3rd party management and monitoring
Should support role based access control with different privilege levels for configuration management

Firewall

Specification	
1	ARCHITECTURE
1.1	Specifications
1.2	Proposed appliance should support for On appliance reporting for logs and reports
1.3	The Firewall should be ICSA Labs certified and EAL4+ certified for appliance
1.4	Proposed appliance should have firmware residing on Flash
1.5	Proposed solution should comply with FCC and CE norms
1.6	The proposed solution should match the following criteria.

	a. Must have a 64-bit hardware platform
	b. Must be based on Multicore Parallel Processing Architecture
	c. 10 10/100/1000 interfaces supporting Hardware Bypass
	d. Minimum of 6x1GE SFP ports with a modular slot to support upgrade of 4 x10GE SFP in same box if required in future.
	e. Minimum 15 million Concurrent sessions
	f. Minimum 200,000 New Sessions/second
	g. Firewall throughput of 100 Gbps.
	h. Minimum 14 Gbps of IPS throughput
	i. Minimum of 5000 IPSec tunnel support and 1000 SSL VPN user support.
	j. Minimum 8 Gbps of IPSec VPN throughput
1.7	The proposed solution should support unrestricted user/node license.
1.8	The proposed solution must support User based policy configuration for security and Internet management.
1.9	The proposed solution should provide on-appliance reports based not only on IP addresses but also based on users.
2	ADMINISTRATION, AUTHENTICATION & GENERAL CONFIGURATION
2.1	The proposed solution should support administration via secured communication over HTTPS, SSH and from Console.
2.2	The proposed solution should allow Guest User authentication via SMS
2.3	The proposed solution should be able to export and import configuration backup including user objects
2.4	The proposed solution must be able to be deployed in Route (Layer 3) and Transparent mode (Layer 2), individually and simultaneously.
2.5	The proposed solution should support integration with Windows NTLM, Active Directory, LDAP, Radius, RSA SecurID, Novell e-Directory or Local Database for user authentication.
2.6	The proposed solution must support Automatic Transparent Single Sign On for user authentication. SSO must be proxy independent and should support all applications for authentication.
2.7	The proposed solution should support Dynamic DNS configuration.
2.8	The proposed solution should provide bandwidth utilization graph on daily, weekly, monthly or yearly for all or individual ISP links.
2.9	The proposed solution should provide real time data transfer/bandwidth utilization details regarding individual user/ip/application.
2.10	The proposed solution should support Parent Proxy deployment with IP/FQDN support.
2.11	The proposed solution should support NTP.
2.12	The proposed solution should support user/ip/mac binding that can map username with corresponding IP and MAC addresses for security reason.
2.13	The proposed solution should have multi lingual support for Web admin console.
2.14	The proposed solution should support Version roll back functionality.
2.15	The proposed solution should be able to force-logout users upon session time-out and idle time-out.
2.16	The proposed solution should support ACL based user creation for administration purposes.
2.17	The proposed solution should support LAN bypass when the appliance is configured in Transparent Mode.

2.19	The proposed solution should support SNMP v1, v2c and v3.
2.20	The proposed solution must be firmware-based rather than software-mounted. It should be able to hold two firmware images on the appliance simultaneously, to facilitate instant roll back.
2.21	The proposed solution must provide flexible, granular role-based GUI administration.
2.22	The proposed solution must provide support of multiple authentication servers for each module (e.g. Firewall, Different type of VPN)
2.23	The proposed solution must support multiple Thin Client (Microsoft TSE, Citrix) authentication mechanisms and must be able to differentiate between requests originating from the same IP address.
2.24	The proposed solution should support:
	1. DHCP Server
	2. DHCP Relay Agent
	3. DHCP support over Ipsec VPN
2.25	The proposed solution should work as DNS Proxy
2.26	The proposed solution must provide customizable login security settings
2.27	The proposed solution must provide customizable administrator password complexity setting
3	MULTIPLE ISP LOAD BALANCING AND FAILOVER
3.1	The proposed solution should support Load Balancing and Failover among more than 2 ISP Links.
3.2	The proposed solution should support explicit routing based on Source, Destination, Username, Application.
3.3	The proposed solution should support weighted round robin algorithm for Load Balancing.
3.4	The proposed solution should provide options for failover condition which includes detecting a failed ISP link on ICMP, TCP or UDP protocol.
3.5	The proposed solution should send alert emails to the administrator(s) notifying any change in gateway status.
3.6	The proposed solution should have Active/Active (Round Robin) and Active/Passive Gateway Load Balancing and Failover support.
4	HIGH AVAILABILITY
4.1	The proposed solution should support High Availability Active/Passive and Active/Active
4.2	The High Availability feature in the proposed solution should be ICSA certified.
4.3	The proposed solution should notify administrator(s) on change of appliance status in High Availability.
4.4	The traffic between the two HA peers must be encrypted.
4.5	The proposed solution should tend to Link, Device and Session failure.
4.6	The proposed solution should support automatic and manual synchronization between appliance in cluster.
5	FIREWALL
5.1	The proposed solution should be standalone appliance with hardened OS.
5.2	The proposed solution should have an ICSA certified firewall.
5.3	The proposed solution should support stateful inspection with user based one-to-one and dynamc NAT and PAT.
5.4	The proposed solution should use User Identity as a matching criteria along with Source/Destination IP/Subnet/group, destination Port in firewall rule.

5.5	The proposed solution should facilitate the application of UTM policies like AV/AS, IPS, Content filtering, Bandwidth policy and policy-based routing decision on the firewall rule itself. Also UTM controls should be able to be applied on inter zone traffic.
5.6	The proposed solution should support user-defined multi-zone security architecture.
5.8	The proposed solution should support inbound NAT load balancing with different load balancing methods like First Alive,Round Robin,Random,Sticky IP and failover with server health check by TCP or ICMP probe.
5.9	The proposed solution should support 802.1q VLAN tagging.
5.10	The proposed solution should support dynamic routing like RIP1, RIP2, OSPF, BGP4.
5.12	The proposed system should provide alert messages on Dash Board in events like default password has not been changed, non-secure access is allowed or module ubscription is to expire soon.
5.13	The proposed system must provide Mac Address (Physical Address) based firewall rule configuration to provide OSI Layer 2 to Layer 7 security
5.14	The proposed solution must support IPv6 as per www.ipv6ready.org guidelines
5.15	The proposed solution must support 3G UMTS, GSM, GPRS modem via USB interface for VPN and Gateway Failover - Load Balancing.
5.17	Firewall should supports Link Aggregation (LAG) for aggregating (combining) multiple network connections into a single connection
6	INTRUSION PREVENTION SYSTEM
6.1	The proposed solution should have singnature-based and protocol-anomaly-based Intrusion Prevention System.
6.2	The proposed solution should have 4000+ signatures in its database.
6.3	The proposed solution must support creation of custom IPS signatures.
6.4	The proposed solution must support creation of multiple IPS policies for different zones instead of a single blanket policy at interface level.
6.5	The proposed solution must allow disabling/enabling of IPS categories/signatures to reduce packet latency.
6.6	The proposed solution should display username along with the IPs in IPS alerts and reports.
6.7	The proposed solution should update automatically by synchronizing with an update server.
6.8	The propopsed solution should generate alerts in case of attacks.
6.9	The proposed solution should generate historical reports based on top alerts, top attackers, severity wise, top victims, protocol wise.
6.10	The proposed solution must be capable to provide session based IPS signature control with actions like:a. Drop Session: To drop the entire session if the traffic in that session matches with any IPS signature. b. Bypass Mode: To bypass the entire session if any traffic matches with IPS signature which is allowed to pass.
7	VPN
7.1	The proposed solution should be WestCoast Labs Checkmark certified.
7.2	The proposed solution should be VPNC Basic interop and AES interop certified.
7.3	The proposed solution should support IPSec (Net-to-Net, Host-to-Host, Client-to-site), L2TP, PPTP and SSL VPN connection.
7.4	The proposed solution should support DES, 3DES, AES, Twofish, Blowfish, Serpent encryption algorithms.

7.5	The proposed solution should support Preshared keys as well as Digital certificate based authentication.
7.6	The proposed solution should support Main mode and Aggressive mode for phase 1 negotiation.
7.7	The proposed solution should support external certificate authorities.
7.8	The proposed solution should support export facility for Client-to-site configuration which ensures hassle free VPN configuration in remote Laptop/Desktop.
7.9	The proposed solution should support commonly available IPSec VPN clients.
7.10	The proposed solution should support local certificate authority & should support create/renew/Delete self signed certificate.
7.11	The proposed solution should support VPN failover for redundancy purpose wherein more than one connections are grouped together. If one connection goes down it automatically switches over to another working connection ensuring zero downtime.
7.12	The proposed solution must support automatic failover of Point to Point link (MPLS) with VPN for redundancy purpose.
7.13	The proposed solution should have preloaded third party certicate authorities including verisign/Entrust.net/Microsoft and should provide the facility to upload other certificate authorities.
7.14	The proposed solution should support Threat free IPSec/L2TP/PPTP VPN tunnelling.
7.15	The proposed solution must support Apple iOS and Android VPN clients
7.16	The proposed solution must provide on-appliance SSL VPN solution with Web Access (Clientless), Web Application Access (Most common used protocols), Full Tunnel and Split Tunnel control. Solution should provide per user / group SSL VPN access (Which involves free license for unlimited users)
7.17	SSL VPN solution should be certified by VPNC for SSL Portal / FireFox Compatibility / Java Script / Basic and Advanced Network Extensions.
8	LOGGING AND REPORTING
8.1	The proposed solution must have On-Appliance, integrated reporting solution.
8.2	The Propose Solution must have 240 GB of Internal Storage if external, Storage must be of 1 TB
8.3	The proposed solution should support minimum 1000+ drill down reports.
8.4	The proposed solution should allow exporting of reports in PDF and Excel format.
8.5	The proposed solution should provide data transfer reports on the basis of username, IP address.
8.6	The proposed solution should provide connection-wise reports for user, source IP, destination IP, source port, destination port or protocol.
8.7	The proposed solution should facilitate sending of reports on email address.
8.8	The proposed solution should support Auditing facility to track all activity carried out on the appliance.
8.9	The proposed solution should support multiple syslog servers for remote logging.
8.10	The proposed solution should forward logging information of all modules to syslog servers.
8.11	The proposed solution should have customizable email alerts/automated Report scheduling.
8.12	The proposed solution should provide reports for all blocked attempts by users/IP address.
8.13	The proposed solution must be capable to provide Multiple Dashboard Report along with the facility to customize the dashboards.

8.14	The proposed solution should be capable of forensic analysis to help organizations reconstruct the sequence of events that occurred t the time of security breach.

Web Security Gateway

Feature	Specifications
Web Threat Protection	The solution should provide proxy, caching, on box malware inspection, content filtering, SSL inspection, protocol filtering and inline AV in block mode on the server based platform or vendor specific hardware. No VM's should be used in solution deployment.
	Solution should be designed for 500 users scalable to 1000 managed through centralized management console on server platform.
	Solution should support in-built load balancing functionality in Secure web gateway solution without any dependency on pac, external load-balancer or dns round-robin methods
	Complete license for Antivirus , SSL and web security should be built in solution for 500 users base from the first day and scalable to 1000 users for future.
	The proposed solution should support to inspect data leaks even over SSL by decrypting SSL natively or by integrating with a third party SSL decrypting devices over ICAP.
	The Solution should intercepts user requests for web destinations (HTTP, HTTPs, and FTP) for web security and in-line AV scanning.
	The solution should be capable of dynamically blocking a legitimate website which has become infected and unblock the site when the threat has been removed for below mentioned security categories and vulnerabilities. Also Solution vendor should ensure to provide below mentioned security categories from day1 with automatic database updates for below mentioned security categories.
	Advanced malware command and control
	Advanced malware payloads
	Bot networks
	Compromised websites
	key loggers
	malicious embedded iframes
	malicious embedded link
	Phishing and other frauds
	Spywares
	Solution proposed should provide in-built file and url sandboxing capabilities right from the first day. Sandboxing can be done either on cloud or through an additional on-premise hardware. Sandboxing capability should also be integrated in-line with SSL inspection capability in the solution.
	The solution should have inline gateway level AV and malware protection on same server based hardware or appliance. AV & Malware inspection should not be separate hardware. Solution should also provide url and file sandboxing functionality enabled on solution from 1st day , sandboxing can be either on cloud or on-premise solution.

	The solution should have at least 30+ million websites in its URL filtering database and' should have pre-defined 100+ URL categories and 100+ application protocols along with YouTube, Facebook and linked-in controls. Solution vendor should ensure that 100 predefined categories & 100 pre-defined protocols should be available on product from day-1. Also in-addition solution should have ability to configure custom categories for organization.
	The solution should have partnerships or third party inputs for web threat ratings like Facebook.
	The solution must detect and block outbound Botnet and Trojan malware communications. The solution must log and provide detailed information on the originating system sufficient to enable identification of infected units for mitigation
	There should be no latency in policy application for mobile laptop users and on premise solution. Mobile laptop solution should have real time policy sync I.e. same policy should be applicable for laptop user (MAC/Windows) when user is outside the private network for the mobile clients installed laptops. Mobile solution should not operate through VPN for policy sync. Mobile solution should not be SaaS based. Mobile solution should not work with any published policy management console for policy sync due to security considerations.
	The solution should be able to perform SSL inspection to detect and block malicious content downloaded through SSL and also blocking sensitive information uploaded to SSL websites should be enabled on the solution with license upgrade without any additional hardware requirement.
	The solution should support same policy enforcement for users even when they access Internet outside the corporate network, this should be enforced through an agent deployment on roaming endpoints. And this solution should be on premises and not with the help of VPN/SAAS i.e. mobile user traffic should redirect to on-premise solution for policy checks. As per the security guidelines no SaaS or policy server public publishing should be allowed for the same
	The agent on the roaming user machines should be tamperproof, for example, the agent cannot be uninstalled by the user even with admin rights to the system or the user cannot stop the services
	Solution proposed should have capability to be configured in sniff mode or promiscuous mode in which solution will sniff the outbound port mirrored traffic and send http 302 resets to end-user machines for blocking purpose. This mode will add no latency when compared to explicit mode of deployment and can be used for specific propose for enterprise requirement
	The solution should have ability to block anonymizer sites or proxy avoidance tools. Below mentioned tools should be blocked from first day and should be provided in default protocol database Ghostsurf, Google web accelerator, Hopster, Jap, Realtunnel, Socksonline, Tongtongtong, Toonel, Tor, Yourfreedom.
	Solution should provide separate Management server which can push policies for centralized management and reporting in case of multiple site solution deployment. Management console should provide automatic policy sync to all the remote boxes when the change is made to central console. Centralized management and centralized reporting console can be appliance based or software server hardware based but no VM should be used for the same.

	MAC OS X 10.9 and MS Windows 8.1 support for mobile laptop users web filtering client..
	Sniff mode or promiscuous mode deployment should also be supported in the solution for web security policy deployment for special setups and user base.This should in-built supported in the solution in addition to explicit and transparent mode deployment
Web content, video & social Media control	The solution should apply security policy to 100+ protocols in 15 categories. This includes the ability to allow, block, log, and assign quota time for IM, P2P, and streaming media and solution should provide at least below mentioned security categories as below RIGHT FROM FIRST DAY: 1)Advanced Malware Command and Control category 2)Advanced Malware payload detection category 3)Malicious embedded links and iframe detection category 4)Mobile malware category 5)Key logger and Spyware category 6)P2P software database from day 1 to control/block the below P2P protocols :Ares,Badongo Buddy, B ittorrent, Boxcloud, C Iu bbox, Damaka, D i rectcon nect, edo n key, ezpeer, fast rack, foldershare, gigatribe, gnutella, Hamachi, googlewave, hotlineconnect, livemesh, mindspring,onshare,operaunite,orsiso,operaunite,pando,projectneon,qnext,raketu, sharenow
	The solution should be able to apply same web filtering policy (for internet categories) to mobile laptop users when they try to connect to internet through organization provided laptop. Also solution should be able to sync the mobile filtering policies in real time without any VPN connectivity to central console and without publishing the policy console with public network
	The solution should filter out embedded objectionable or unproductive content, this includes examination of the source server, URL, page content, and active content
	The solution should have granular control over popular social web applications like Facebook, LinkedIn, Twitter, YouTube, and others.
	The solution should have social control Video UPLOADS to Facebook and YouTube applications.
	The solution should have functionality to control web 2.0 and real time content categorization.

	The solution must provide below mentioned categories for Facebook control from day 1 Facebook Posting: Facebook function that enables a user to share a post, status or link. Facebook Commenting: Facebook function that enables a user to comment or like. Facebook Friends: Facebook function that enables a user to add a connection. Facebook Photo Upload: Facebook function that enables a user to upload a photo. Facebook Mail: Facebook function that enables a user to send an email within the Facebook community. Facebook Events: Facebook function that enables a user to create, modify or respond to an event within the Facebook community. Facebook Apps: Facebook function that enables a user to access or utilize an app. Facebook Chat: Facebook function that enables a user to chat within the Facebook community. Facebook Questions: Facebook function that enables a user to ask a question within the Facebook community. Facebook Video Upload: Facebook function that enables a user to upload a video. Facebook Groups: Facebook function that enables a user to create, modify or join a i group within the Facebook community. Facebook Games: Facebook function that enables a user to access or playa game
	The solution should have built-in policies for identifying I segregate You Tube traffic for Education only and Other irrelevant non-compliance video, It should simplify design and implementation of policy to ensure user compliance.
Content Control	Proposed solution should have real time scanning capabilities on appliance
	The solution should provide at least 1700+ built-in/pre defined policies/templates for multiple industries and geographies, and can be accessed, used, and applied simultaneously. This webdlp solution that provides content, context, and destination awareness, allowing administrators to manage who can send what information where and how for corporate information leak policy definition
	The solution should have support for pre-defined dictionaries, key phrases to detect financial terms, offensive language etc. for content specific HTTP POST inspection on gmail and other public mails and social networking websites
	The solution should have ability to detect slow cumulative data leaks through web channel.
	The solution should have capability to analyse text inside image going through web channel
	The solution should provide geo-location awareness for security incidents.
	The solution should provide capability to fingerprint files, folders, databases and prevent the information from being sent over outbound web channel for both structured and un-structured data.
	The proposed solution should support to provide real time data identifiers to detect and prevent sensitive information getting stolen by malware through web channel. Solution should have pre-built signatures to detect information leaks through malware.(predefined policies to detect malware threads malware communication or malware data theft)
	The proposed solution should have capability to identify the use of encryption methods designed to evade DLP analysis
	The proposed solution should provide pre-defined policies for identifying possible for identifying possible expression that are indicative of cyber bullying , self destructive pattern or employee discontent
	Solution should provide in-built integration with windows file classification and right

	management product
	The solution should be able to manage the complete solution through centralized management and reporting console which should be software based.
	The webdlp solution at network level should provide 100+ default web destination categories for granular web controls eg: information uploads to face book and blogs site can be controlled.
	The proposed solution should be able to detect illegitimate transmission of user credentials or password file data theft detection over web channel
	The solution should also have capability to differentiate between YouTube educational and entertainment videos through default categories and should have separate default categories for the same.
	HW for the proposed solution should be on physical servers or appliances and not virtual appliances or servers.
Management	The Management console provides Security administrators with a comprehensive, up-to-date view of threat characteristics and response, user activity, network load, system stats and more
	The solution should have authentication options for administration, the specific permissions available depend on the type of administrator and Administrator activity is logged and available for auditing or troubleshooting.
	The solution should have authentication options for users/groups, It should supports authentication of users via Integrated Windows Authentication (Kerberos), NTLM (NTLM v1 and v2 in Session Security), and LDAP.
	The solution should have support of multiple domains, the administrators can specify the sequence (Domain controllers checked first, second, next, etc.) used to authenticate users who login from different locations.
	The solution should supports credential caching (for transparent and explicit proxy) to reduce load on domain controllers.
Logs and Reporting	The solution should have centralized management for multiple web egress points
	The solution should have Multi-Domain authentication to allow the admin to create rules that authenticate against multiple domain controllers in a sequence
	The solution should have Mac Logon Agent Authentication of Macintosh users and the ability to apply policy based on the username for MAC laptops
	The solution should have support for two factor Authentication for Management Server.
	The solution should support real time graphical and chart based dashboard for the summary of web filtering activities.
	The solution should pre-built report templates which the administrator can use for generating reports.
	The solution should support custom report creation in Excel and PDF.
	The solution should have capabilities to automatically deliver reports based on schedule to selected recipients
	The solution should be able to consolidate reports from multiple boxes for centralized logging and reporting.
	The solution should provide detailed information on security incidents to comprehensively investigate individual threat events
	The solution should be integrated to third-party SIEM applications like syslog/CEF (ArcSight), syslog key-value pairs (Splunk and others), syslog LEEF (QRadar), and Custom.

	The solution should have ability to capture data for security incidents and the captured characteristics include: Source of the request, destination IP, File name and size, parameters and Body (CGI and HTML information from the file header).
	The solution should provide a Web UI to manage Internet usage policies, it should also support delegated administration and reporting capabilities so different roles can be created to manage policies and view reports.
	The solution should provide native system health monitoring, alerting and troubleshooting capabilities.
	The solution should provide reports based on hits, bandwidth and browse time.
	The solution should support configuring scheduled automatic backup of system configuration
	The solution should support automatic download of available patches or fixes
	The Solution should have inbuilt reporting feature like real time monitoring, reporting templates and investigation drill down report.
	The solution should have reporting on the user agent strings of applications to provide details on application usage and version details including browser version reports.
Supports, Third party recognitions	The OEM should have own T AC centre in India.
	The OEM Should in the Gartner leader Quadrant for Secure web gateway solution and Data leak prevention since at least Last 3 Years

Backup Software

The proposed backup solution should be available on various OS platforms such as Windows, Linux and UNIX platforms
The proposed backup solution shall support industry leading cluster solution such as MSCS, MC Service Guard, Veritas Cluster.
The proposed backup solution shall have same GUI across heterogeneous platform to ensure easy administration.
The proposed backup solution should support tape mirroring of the same job running concurrently with primary backup.
The proposed backup solution should allow creating tape clone facility after the backup process.
The proposed backup solution shall be configured in such a fashion that no extra license for client and media servers is required while moving from LAN to SAN based backup.
The proposed backup solution shall be configured with unlimited client and media licenses for both SAN based backup and LAN based backup.
The proposed backup solution must not require separate licensing when upgrading from a lower end server (1-2 CPU-based server) to higher end server (4-and CPU-based server)
The backup software should support either the Capacity based model or Application based model of licensing
The proposed backup solution supports the capability to write up to 32 data streams.
The proposed backup solution support de-multiplexing of data cartridge to another set of cartridge for selective set of data for faster restores operation to client/servers.

The proposed backup solution has in-built media management and supports cross platform device and media sharing in SAN environment. It provides a centralized scratched pool thus ensuring backups never fail for media.
The proposed backup solution has in-built frequency and calendar based scheduling system.
The proposed backup solution has certified “hot-online” backup solution for different type of Enterprise databases & applications
The proposed backup solution shall also support granular recovery for Vmware , Exchange server, Share point Portal
The backup software should suppport Non Staged Granular recovery in VMWare
The proposed backup software should use the same API for software and hardware duplication
The backup software should support backup to disk /VTL / duplication Device via Fibre channel
The backup software should support IP sec encryption for the VTL / Disk device
The proposed backup software should give the option to allow de duplication to be done either on the Application Server or on the Backup Server or at the Target Device.
The proposed backup software should support contextual search based on meaning.
The proposed backup software should support both on-premise and secure hosted backup solution
The proposed backup solution shall support synthetic full backup / Virtual full backups.
The proposed backup solution shall be able to copy data across firewall.
The proposed backup solution shall support automatic skipping of backup during holidays.
The proposed backup solution must support at least AES 256-bit encryption capabilities.
The backup software should support the Recurrence type Every Minute which will support more frequent backup jobs
The backup software should support Different Time Zone within enterprise environments, where backups can be scheduled across different time zones from the same single schedule
The backup software should support priority based backup schedule
The backup software should support missed job execution
The Backup software should support Advanced Scheduling options
The Backup software should be able to recover only critical volumes and later restore other volumes that were backed up in separate sessions.
The backup software should be capable to supporting 99,999 backup sessions in day
The backup software should be capable of supporting 1000 concurrent sessions
The backup software should be able to support maximum of 40 Million files per directory

Tape Library Specs for MSL 4048 (Fiber)

1.0.0 Offered Tape Library shall support Native data capacity of 120TB (uncompressed) expandable to 300TB (2.5:1compressed).
1.1.0 Tape Library shall provide web based remote monitoring capability.

1.2.0 The Tape Library unit shall be configured with 2 nos FC LTO Gen6 Tape Drives.
1.3.0 Tape Library shall be scalable to four FC LTO6 drives within the same frame.
1.4.0 Offered tape library shall be offered with minimum of 48 Cartridge slots and barcode reader
1.5.0 Tape Drive Architecture in the Library shall conform to Ultra3 SCSI standards.
1.6.0 Offered LTO6 drive in the Library shall conform to the Continuous and Data rate matching technique for higher reliability.
1.7.0 Offered LTO6 drive in the library shall offer optional WORM support and embedded AES 256 bit encryption.
1.8.0 Offered Library shall be provided with a hardware device like USB key, separate appliance etc. to keep all the encrypted keys in a redundant fashion.
1.9.0 Offered LTO6 drive shall have native speed of 160MB/sec and a compressed speed of 400 MB/sec for 2.5:1 compression.
1.10.0 Offered tape Library shall have partitioning support and shall support at-least two number of partition so that configured drives can have owned partition and slots.
1.11.0 Tape Library shall provide native Fibre connectivity to SAN Environment.
1.12.0 For optimal Performance. Tape Library shall provide native 8Gbps FC interface connectivity to SAN switches.
1.13.0 Tape Library shall be offered with minimum of 48 slots and barcode reader.
1.14.0 Tape library shall support removable magazine and mail slot.
1.15.0 Tape Library shall have GUI Front panel.
1.16.0 Tape Library shall have option for redundant power supply.
1.17.0 Tape Library shall be supplied with software which can predict and prevent failures through early warning and shall also suggest the required service action.
Offered Software shall also have the capability to determine when to retire the tape cartridges and what compression ratio is being achieved

SAN Switch

SNo	Specifications

Architecture/Scalability/Performance/Management/Availability:	
1	Minimum Dual SAN switches shall be configured where each SAN switch shall be configured with minimum of 16 Ports scalable to 24 ports.
2	Required scalability shall not be achieved by cascading the number of switches and shall be offered within the common chassis only
3	Should deliver 8 Gbit/Sec Non-blocking architecture with 1:1 performance for up to 24 ports in a energy-efficient fashion
4	Should protect existing device investments with auto-sensing 4, 8, and 16 Gbit/sec capabilities.
5	The switch shall support different port types such as FL_Port, F_Port, E_Port, EX_Port.
6	The switch should be rack mountable
7	Should provide enterprise-class availability features such as redundant and hot pluggable components like power supply and FAN
8	Non disruptive Microcode/ firmware Upgrades and hot code activation.
9	The switch shall provide Aggregate bandwidth of 768 Gbit/sec end to end.
10	Switch shall have support for web based management and should also support CLI.
11	The switch should have USB port for firmware download, support save, and configuration upload/download.
12	Offered SAN switches shall be highly efficient in power consumption. Bidder shall ensure that each offered SAN switch shall consume less than 100 Watt of power.
13	Switch shall support POST and online/offline diagnostics, including RAStrace logging, environmental monitoring, non-disruptive daemon restart, FCping and Pathinfo (FC traceroute), port mirroring (SPAN port).
Intelligent Networking:	
14	Offered SAN switch shall support services such as Quality of Service (QoS) to help optimize application performance in consolidated, virtual environments. It should be possible to define high, medium and low priority QOS zones to expidite high-priority traffic
15	The switch shall be able to support ISL trunk up to 128 Gbit/sec between a pair of switches for optimal bandwidth utilization and load balancing.
16	SAN switch shall support to restrict data flow from less critical hosts at preset bandwidths.
17	It should be possible to isolate the high bandwidth data flows traffic to specific ISLs by using simple zoning
18	The Switch should be configured with the Zoning and shall support ISL Trunking features when cascading more than 2 numbers of SAN switches into a single fabric.
19	Offered SAN switches shall support to measure the top bandwidth-consuming traffic in real time for a specific port or a fabric which should detail the physical or virtual device.

Servo Stabilizer

SNo	Specifications
	140 kVA,Liner/Roller Type, Indoor, 3 phase input Voltage 320 to 480 volts output voltage 400 volts plus minus 1 percent,Digital Micro Processor Based Controlling, True RMS Digital Display for Input / Output / Current , Provision of MCB ,High Low Cut-off, Over Under Voltage & Phase Preventor, Continuous duty suitable for balance output And unbalance input voltage correction,copper Wound,Oil cooled inclusive first fill of Transformer oil and short circuit protection With suitable mcb,protection against single Phase,digital volt,ampere, oil temp meter including Auto/manual operation,

	efficiency more than 97 percent,Refence and acceptance test as per IS9815, IS2026,Make Red Phase/Jindal/AE/Green Dot/Logic Stat

Diesel Generator Set

SNo	Specifications
	Diesel Generator Set **Diesel Engine** Diesel engine developing power at 1500 RPM, water cooled, four stroke,electric start, six cylinders, conforming to BS: 5514 with capacity of 10% overloading for one hour in twelve hours duration having following accessories in the scope of supply and installation: Air Intake System: i. Air intake manifold ii. Air cleaner iii. Vacuum indicator Exhaust System: i. Turbocharger ii. Flexible connection iii. Exhaust manifold iv. Silencer Coolant System: i. Engine water pump ii. Radiator iii. Coolant additive concentrate Lubricating System: i. Oil Sump ii. Engine mounted lube oil pump iii. Spin-on lube oil filter Fuel System: i. In-line fuel pump with mechanical governor ii. Injector iii. 24V DC solenoid coil iv. Replaceable fuel filter Starting System: i. 24V DC electric starter ii. 24V DC battery charging alternator **Microprocessor Based DG Set Controller** Microprocessor based DG set power command module compatible for remote monitoring and data logging with operator interface to the Genset, digital voltage regulation of +/- 1% for any load between no load to full load, digital speed governing and generator set protective function as under: Control: i. Off / Manual / Auto Control switch ii. Emergency stop iii. Manual Run / Stop Control switch iv. Panel Lamp/ Lamp Test Control Switch v. Operator adjustment for Time Delay Start/ Stop & Alternator Voltage / Frequency Metering (Engine): i. Starting Battery Voltage ii. Lube Oil Pressure iii. Engine Coolant Temperature

iv. Engine Speed
v. Data Logs: Engine run time, controller on time, number of runs, and number of start attempts

Metering (Electrical):
i. Current
ii. Voltage
iii. Frequency
iv. kVA

Protection / Warning (Engine):
i. Over Speed Shutdown
ii. Low Lube Oil Pressure Warning / Shutdown
iii. High Coolant Temperature Warning / Shutdown
iv. Low Coolant Temperature Warning
v. Low & High Battery Voltage Warning
vi. Weak Battery Warning
vii. Over Crank (Fail to Start) Shutdown
viii. Cranking Lockout: This control will not allow the starter to engage when the engine is running
ix. Sensor Failure Indication Protection / Warning (Alternator):
i. Over Current Warning / Shutdown
ii. High / Low Voltage Shutdown
iii. Under / Over Frequency Shutdown / Warning
iv. Excitation fault(Loss of Voltage sensing Input to control) shutdown
v. Field overload shutdown

Alternator

Synchronous alternator of 140 KVA rating, suitable for continuous operation at least 1500 RPM generating 415 volts, 0.8 p.f.(lag) 50 Hz. The alternator shall be brushless type, self-excited & self-regulated through an Automatic Voltage Regulator (AVR). The alternator will be suitable for tropical climate and shall generally confirm to IS: 4722.

The salient features of the alternator are:
i. +/- 1 % voltage regulation in static conditions
ii. IP: 23 protection, Class 'H'
iii. Permanent lubricated sealed bearing
iv. Permissible overload of 10% for one hour in 12 hours of operation

Base Frame

Engine and alternator are mounted through Anti Vibration Mount (AVM) pads, on a common channel iron fabricated Base frame.

Fuel Tank

Daily service fuel tank of 250 ltr (Suitable to provide 6 hr backup) capacity fabricated from sheet metal complete with drain valve, air vent, and inlet and outlet connection.The fuel tank shall be placed under the base frame inside the acoustic enclosure.

Battery

Maintenance free batteries of capacity 12V- 65 AH (2 Nos.).

Documentation

1 set of following documents shall be provided:
i. O & M Manual of Diesel Engine
ii. Test Certificate of diesel engine
iii. Test certificate of Alternator
iv. Test certificate of DG Set

Acoustic Enclosure

i. The enclosure is fabricated out of CRCA sheet of 16 SWG
ii. The sheet metal components are hot dipped in NINE TANKS pretreated before powder coating
iii. Enclosure is powder coated (inside as well outside) with a special pure polyester based powder. All Nuts and, bolt/external hardware are made from stainless steel
iv. The doors shall have high quality EPDM gaskets to avoid leakage of sound
v. The door handles are lockable type

	vi. Sound proofing of enclosure is done with PU foam vii. Specially designed attenuators are provided to control sound at air entry to the container and exit from the container viii. Adequate ventilation is provided to meet air requirement for combustion and heat removal ix. Temperature of enclosure does not exceed beyond 7 degree centigrade of ambient temperature x. All equipment supplied shall meet all applicable IS, and other applicable standards xi. As per CPCB norms with acoustic enclosure the noise level shall be 75 dBA at one meter under free field condition.

Application Software

SCOPE OF WORK

a. **Supply:** Supply of the Software Licence including peripherals, completely described in the BID, and their installation, maintenance at on-site/off-site locations provided by the University.

b. **Installation:**
   i. Configuration and Setup of the Software according to the requirements of the University.
   ii. User training to the IT staff of the University.

c. **Uptime:** The Bidder will ensure an uptime of 99% for the Software deployed by them.

d. **Warranty :** The product will be with a three year warranty.

e. **AMC and Upgrades:** The technical maintenance of the Software will be the responsibility of the Bidder. The charges for such AMC and Upgrades shall be borne by the University after the expiry of three year standard warranty only.

f. Estimated number of users of application is mentioned below. User License should be complete in all sense i.e. only **Full Usage User License** has to be quoted. All licenses shall be of Perpetual Nature only. No time restriction licenses shall be entertained.

g.

Table 1 : *APPLICATION USERS*

S No	Name of Module	Number of Users
	Student Management System	1.5 lacs students
	Academic Management System(Principal & Teacher)	3000 users
	Finance Accounting and Budgeting.	20 Users
	Pre-Admission, Admission, Academics & Examination Modules.	150 Users
	Store Management System	5 Users
	XEN Office	10 Users
	File Tracking System	150 Users
	Placement Cell	5 Users
	Estate Office	5 Users

	Chief Warden Office & Hostel Management	20 Users
	Library Management System	10 Users
	Pool Office	2 Users
	Enquiry/ Help Desk Management System	5 Users
	Academic Staff College	10 Users
	Dispensary/ Hospital Management	5 Users
	Dean of Studies	10 Users
	Dean Colleges	5 Users
	Dean Student Welfare	5 Users
	VC Office & Recruitment	10 Users
	Establishment Branch	20 Users
	Registrar Office	10 Users
	Guest House	2 Users
	Director Physical Edu.	5 Users
	General Administration Branch	20 Users
	Computer Centre	5 Users
	ICDEOL	30 Users
	University Website	3 Users

The Bidders are free to quote for all the activities as per schedule A, B and C or may form Consortia for doing so. In case of consortia, the prime Bidder and all the other consortium partners shall be jointly responsible for all the activities. **THE UNIVERSITY IS FREE TO ADOPT ANY SCHEDULE AS PER ITS REQUIREMENT AND FINANCIAL CONSTRAINTS.** The bidders are free to form Consortia for establishing data centre and supply of hardware and other related items.

Number of Users

Concurrent Users at a time may be 30,000 at the time of filling up online Application.

Performance Standard

The System should ensure that functions and its integrations are according to the definition as per scope of work and shall have 99% uptime efficiency. (ERP Application, Databases, customization, integration, development, or any other s/w - packaged, customized, developed within the scope of the tender should comply with this uptime).

5

TERMS & CONDITIONS OF THE REQUEST FOR PROPOSAL

This RFP is open to those firms / companies, who have participated in the Expression of Interest for this purpose requested by the University to participate in RFP and are eligible to do business in India under relevant Indian laws as in force at the time of bidding and who fulfil the minimum qualification Criteria as hereinafter laid down. In addition to the above general requirements the Bidders must comply with additional qualifications as laid hereinafter for the schedules of this RFP Document which they intend to respond for.HPU aims at improving efficiency and effectiveness of the University. In particular, the scope of work for the system integrator would involve:

1. Detailed Process Study of As-Is and To-Be processes at HPU in consultation with various stakeholders
2. Implementation of the ERP and development of other functionalities mentioned in the document.

3. Training & capacity building to ensure easy adoption for HPU employees

The bidder must fully understand the scope of work as outlined in earlier sections of this RFP.

COST OF TENDER DOCUMENT

The Tender document (RFP) is available for Rupees 10000/- (non refundable) to the interested bidders who had participated in the technical presentation held in the month of April 2015. An electronic version of this tender document can be downloaded from the HPU website however the bidder has to deposit 10000/- vide a Demand Draft in favour of The Finance Officer, H.P. University at the time of submission of bid.

KEY ACTIVITIES AND DATES

S.No.	Key Activities	Date
1	Request For Proposal (RFP) available on website (Cost of RFP is Rs.10,000)	07-09-2015
2	Last Date for Submission of Written Questions by bidders	14-09-2015
3	HPU Response to bidder Questions latest by	21-09-2015
4	Last Date / Time for submission of bids	05-10-2015
5	Technical Bid opening Date/Time	07-10-2015
6	Technical Bid Evaluation	13-10-2015
7	Commercial Bid Opening of Technically qualified bids	16-10-2015

Eligibility Criteria

The technical bids will be evaluated by the technical evaluation committee constituted for this purpose .Undertaking for subsequent submissions of any of the document will not be entertained under any circumstances; however HPU reserves the right to seek clarifications on the documents submitted along with the tender.

The submission from potential bidders must include complete information on company's profile, capabilities, number of employees, software projects and total turnover. In the case of a consortium, individual details of companies shall be provided. Bidders (in the case of a consortium the leader of the consortium) who fulfill the following criteria alone shall respond to this RFP and mentioned clearly:

The bidder shall have technically qualified software work force in India (Proof may be submitted for the workforce.)

Eligibility Criteria

GENERAL ELIGIBILITY CRITERIA

S.NO	Eligibility Criteria	Required Details
1	Company must be registered under the Indian Companies Act 1956 for at least last 3 (three) years. The bidder must provide details of incorporation details of the Company	Attested Copy of Certificate of Incorporation. Attach MOU and Articles Of Assoc.
2	The Bidder should have annual turnover of min. Rs 15 crore for the preceding last three financial years (from similar activities) i.e. for year 2011-12, 2012-13, 2013-14.	Audited Balance Sheet of the company registered under the Indian Companies Act 1956 for at least last 3 (three) years
3	The Bidder should have been making profit from last three years i.e. 2011-12, 2012-13, 2013-14.	Profit and Loss account Statement
5	The company should be least **SEI CMMi level 3 , level 5** certified or ISO **9001:2008** certified	Attach relevant certificate
6	The Bidder should have Experience in Software Development and Web Portal Development including maintenance for the last 3 years.	Attach relevant proof
7	The Bidder should have Experience in implementation of ERP for Universities	Work order and Experience certificate from client.
8	The bidder should not be blacklisted by any state government or central government	Submit an undertaking.

9	The Bidder should have deposited the cost of RFP Document i.e. Rs. 10,000/-	Yes/ No.
10	Hardware Vendor/Consortium Vendor Shall Provide Authorisation letter from Hardware OEM to participate in the Tender and OEM providing the Support Level agreement.	Yes/No

The successful bidder will have to sign SLA (**Service Level Agreement**) before designing, developing and implementing the ERP.

SERVICE LEVEL AGREEMENT

		Baseline		Lower Performance		Breach		Basis of
S.N.	Service metric parameters	metric	Points	Metric	Points	metric	Points	Measurement
	Service Related							
1.	Average Portal page opening/ loading time	< 5 sec.	10	5 to10 sec.	7	>10 sec.	-10	Measured over 128 kbps speed .
2.	Average response time for Custom built Enterprise application	< 5 sec.	10	5 to10 sec.	7	>10 sec.	-10	Server logs
3.	Average response time for retrieval of information from server	< 5 sec.	10	5 to10 sec.	7	>10 sec.	-10	Server logs
4.	Average archived / History data opening / loading time	< 7 sec.	10	7 to12 sec.	7	>12 sec.	-10	Measured over 128 kbps speed.

5.	Availability of Servers	>=99.9	10	>=99 to <99.9	7	>99	-10	Measured by Server Logs
6.	Availability of rest of the hardware	>=99.5	10	>=98 to <99.5	3	>=98	-5	Measured by Server Logs/ Complaint Register etc.
7.	Manpower availability	>=99%	10	95 to 99 %	7	<95%	-10	Attendance
8	Critical priority Incidents	Immediate	15	T*+2 hrs	10	>T + 2 hrs	-15	Feedback and log details
9	Medium priority incidents	Within 2 hrs	10	>2 T <=4	7	>T + 4 hrs	-10	Feedback and log details
10	Low priority incident	Within 24 hrs	10	T + 24 Day	7	>T + 24 hrs	-10	Feedback and log details
	Total		**100**		**69**		**-100**	

ESTIMATE OF APPLICATION USERS

Estimated number of users of application at HPU is mentioned below. It shall be the decision of HPU to distribute the user licenses within the organization. User License should be complete in all sense i.e. only **Full Usage User License** has to be quoted. All licenses shall be of Perpetual Nature only. No time restriction licenses shall be entertained.
Apart from license and implementation of Academic Management System, **license fees for other functionalities of the University as mentioned in the Table 1 are to be quoted.** Implementation will be requested separately**.**

Table 1 : *APPLICATION USERS*

S No	**Name of Module**	**Number of Users**
	Student Management System	1.5 lacs students
	Academic Management System(Principal & Teacher)	3000 users
	Finance Accounting and Budgeting.	20 Users
	Pre-Admission, Admission, Academics & Examination Modules.	150 Users
	Store Management System	5 Users
	XEN Office	10 Users
	File Tracking System	150 Users

	Placement Cell	5 Users
	Estate Office	5 Users
	Chief Warden Office & Hostel Management	20 Users
	Library Management System	10 Users
	Pool Office	2 Users
	Enquiry/ Help Desk Management System	5 Users
	Academic Staff College	10 Users
	Dispensary/ Hospital Management	5 Users
	Dean of Studies	10 Users
	Dean Colleges	5 Users
	Dean Student Welfare	5 Users
	VC Office & Recruitment	10 Users
	Establishment Branch	20 Users
	Registrar Office	10 Users
	Guest House	2 Users
	Director Physical Edu.	5 Users
	General Administration Branch	20 Users
	Computer Centre	5 Users
	ICDEOL	30 Users
	University Website	3 Users

The Bidders are free to quote for all the activities as per schedule A, B and C or may form Consortia for doing so. In case of consortia, the prime Bidder and all the other consortium partners shall be jointly responsible for the all the activities. **THE UNIVERSITY IS FREE TO ADOPT ANY SCHEDULE AS PER ITS REQUIREMENT AND FINANCIAL CONSTRAINTS.** The bidders are free to form Consortia for establishing data centre and supply of hardware and other related items.

Concurrent Users at a time may be 30,000 at the time of filling up online Application forms, and registration of courses.

BIDDER INQUIRIES AND HPU RESPONSES

All enquiries / clarifications from the bidders, related to this RFP, must be directed in writing exclusively to the contact person notified by HPU. The preferred mode of delivering written questions to the aforementioned contact person would be through email. Telephone calls will not be entertained. In no event will HPU be responsible for ensuring that bidders' inquiries have been received by HPU.

HPU'S RIGHT TO TERMINATE THE PROCESS

a) HPU may terminate the RFP process at any time and without assigning any reason. HPU makes no commitments, express or implied, that this process will result in a business transaction with anyone.

b) This RFP does not constitute an offer by HPU. The bidder's participation in this process may result in HPU selecting the bidder to engage in further discussions and negotiations toward execution of a contract. The commencement of such negotiations does not, however, signify a commitment by HPU to execute a contract or to continue negotiations. HPU may terminate negotiations at any time without assigning any reason.

LATE BIDS

Bids received after the due date and the specified time for any reason whatsoever, shall not be entertained.

BID OPENING

Total transparency will be observed while opening of proposals. HPU reserves the right at all times to postpone or cancel a scheduled tender opening.

In the event of the specified date of bid opening being declared a holiday, the bids shall be opened at the appointed time and location on the next working day.

The details of Bid Opening are as follows:

a) Bids will be in two parts (technical and financial) as indicated in the RFP. There will be two bid-opening events (1) for the Technical Bids and (2) for the Financial Bids.

b) The technical proposals of all the bidders who qualify in the pre-qualification evaluation will be evaluated. Commercial bids of technically qualified bidders obtaining 70 percent and above marks will only be opened. All the proposals will be opened in presence of the bidder's representatives.

c) The commercial bid should have validity period of three months from the date of submission.

DISQUALIFICATION

The proposal is liable to be disqualified in the following cases:

a) Proposal not submitted in accordance with this document.

b) During validity of the proposal, or its extended period, if any, the bidder increases his quoted prices.

c) Proposal is received in incomplete form.

d) Proposal is received after due date and time.

e) Proposal is not accompanied by all requisite documents

f) Information submitted in technical proposal is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period if any.

g) Any licensing metric other than Full Usage License.

h) Commercial proposal is enclosed with the same envelope as technical proposal.

i) In case any one party submits multiple proposals.

j) Bidder fails to deposit the EMD or fails to enter into a contract within 15 days of the date of notice of award of contract or within such extended period, as may be specified by HPU.

COST OF BIDDING

The Bidder shall bear all costs associated with the preparation and submission of its bid and the Purchaser will in no case be responsible or liable for those costs.

PROPOSAL EVALUATION AND COMPARISON OF BIDS

A committee constituted by HPU will evaluate the proposals. The evaluation of bids shall be done in 2 stages and evaluation is based on Quality-Cost criteria. At the end of technical bid evaluation short listed bidders will be informed of the result. The following is the procedure for the evaluation.

HPU will evaluate and compare the bids that have been determined to be substantially responsive, pursuant to tender requirements & other eligibility criteria as stated in this bid document.

The Bidder(s) will be evaluated on QCBS (Quality cum Cost Basis Selection) System as given. There will be 70% weightage for Technical Bid and 30% for Commercial Bid. The following is the procedure for the evaluation.

A maximum of 100 marks will be allocated for the Technical Bid. These marks will be awarded based on the compliances of the functional specifications asked for in this document as per following details: The Bidders scoring less than 70 marks (cut-off score) out of 100 marks in the technical evaluation shall not be shortlisted for next stage of Commercial Bid evaluation process.

In case, less than two participating Bidders qualify on technical criteria and reach or exceed the cut-off score of 70, then the university at its sole discretion, may qualify maximum three (total) Bidders on the basis of the top three scores (but not less than 60 marks).

Quality cum Cost Basis Selection (QCBS)

Technical Evaluation Parameters

		Max	
1.	Financial Capability: Average annual turnover for last three years		
	FY 20011-12,12-13,13-14 < 25 Crores	2	
	INR >=25-50 Crores	3	
	INR >50 Crores	5	5
2.	Certification		
	ISO 9001-2008,	4	
	ISO 27001	6	
	CMMI Level 3	8	
	CMMI Level 5	10	10
3.	ERP/Web Portal implemented in University		
	with no Affiliated Colleges in India	4	
	ERP/Web Portal implemented in One Indian State Govt. University/		
	Central University with Affiliated Colleges	6	
	ERP/Web Portal implemented in more than One Indian State Govt. University/		
	Central University with Affiliated Colleges	8	
	ERP/Web Portal implemented in more than two Indian State Govt. University/		
	Central University with Affiliated Colleges	10	10
4.	ERP/Web Portal implemented in any one University with which Max. Affiliated		
	colleges are > 10 & < 25	4	
	ERP/Web Portal implemented in any one University with which Max. Affiliated		
	colleges are >= 25 & < 50	6	
	ERP/Web Portal implemented in any one University with which Max. Affiliated		

colleges are >= 50 & < 100	8		
ERP/Web Portal implemented in any one University with which Max. Affiliated colleges are >= 100 & < 150	10		
ERP/Web Portal implemented in any one University with which Max. Affiliated colleges are >= 150 & < 200	12		
ERP/Web Portal implemented in any one University with which Max. Affiliated colleges are >= 200	15	15	
5. CBCS(Choice Based Credit/Grade System) in Examination implemented		5	5
6. Examination Result Processing of Students in one University in one year > 10k < 50k	5		
Examination Result Processing of Students in one University in one year >= 50k < 1 lakh	8		
Examination Result Processing of Students in one University in one year >=1 lakh < 2 lakh	10		
Examination Result Processing of Students in one University in one year >= 2 Lakh	15	15	
7. Either of the Consortium Bidder is a product owner & implementer	10	10	
8. Project completed involving design, development, maintenance and hosting of application in any University in last 3 years having value of more than 1 Crore INR will be considered			
=1 project		5	
2 - 3 projects		8	
>3 projects	10	10	
9. APPs run on all three environment (Desktop, Mobile, Tablet)	5	5	
10. Respective OEM supported Hardware Bidder/Co-bidder must have established Data Centre in a University/PSU/Govt. organization	5	5	
11. Employee strength Employees employed in Software design, development, implementation, Procurement, installation, testing, services and support			
Up to 50	5		
50-100	8		
> 100	10	10	
Total			100

.

EVALUATION OF THE FINANCIAL BIDS

Final Selection of Bidder will be done based on added individual score achieved by the Bidder in techno-commercial evaluation as per the given weightage of technical and financial proposals. The Bidder getting the highest score shall be selected for award of work.

CONTACTING THE PURCHASER

a) From the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Purchaser on any matter related to the bid, he shall do so in writing.

b) If a Bidder tries to influence the Purchaser directly or otherwise, interfere in the bid evaluation process and the Contract award decision, his bid will be rejected.

AWARD CRITERIA

The technically qualified Bidder whose bid is lowest shall be eligible for award of contract. If the bid is the same for two or more Bidders then the Purchaser will consider the bidder with higher Technical Score for awarding the contract. If the Technical Score is also the same for two or more Bidders then the Purchaser will consider the bidder with higher Score in evaluation.

LETTER OF AWARD

a) Prior to the expiration of the period of bid validity, the Purchaser will notify the successful Bidder in writing that its bid has been accepted. In case of any unforeseen circumstances if Letter of Award (LOA) is not issued within bid validity period, the bidder has to extend the bid validity as desired by the Purchaser.

b) The notification of award will constitute the formation of the Contract.

SIGNING OF CONTRACT

a) The purchaser shall issue Letter of Award (LOA) to the successful bidder inviting them for finalization & signing of the contract.

b) Contract document has to be signed within fifteen (15) days of date of LOA.

c) SLA will be signed by the successful bidder at the time of award of contract.

EVALUATION OF THE TECHNICAL BIDS

a) This shall be the first stage of the evaluation by the Purchaser. Only those Bidders who cross the threshold level of the technical evaluation, shall be considered for the evaluation.

b) Technical evaluation of the bid will be based on the following parameters related to University/Colleges and associated maximum marks as given in the Table:

PROCEDURE FOR SUBMISSION OF BIDS

It is proposed to have a two cover system for this Request for Proposal.

i. Technical Proposal.
ii. Commercial Bid and Earnest Money Deposit.

Please note that Rates should not be indicated in the Technical Bid. Only Commercial Bid should indicate rates.

All the documents viz. Technical Bid and Commercial Bid and Earnest Money Deposit prepared and sealed as hereinafter directed are to be kept in a single sealed cover super-scribed with the words "REQUEST FOR PROPOSAL for Web Enabled University Management System (HPU/CC-102)" , due at 13:00 hrs on Monday, OCT. 05 , 2015,

The cover thus prepared should also indicate clearly the name and address of the Bidder, to enable the Bid to be returned unopened in case it is received after the specified date and time.

The Bid shall be in the prescribed format and shall be signed by the Bidder or a person duly authorized to bind the Bidder to the contract.

All pages of the bid except un-amended printed literature shall be initialled by the person(s) signing the Bid. The bid shall contain no interlineations, erasures or over writing except as necessary to correct errors

made by the Bidder, in which case such corrections shall be initialled by the person(s) signing the bid.

The Bids prepared by the Bidders shall thus comprise of following components:

i. Technical Bid, as directed kept in a sealed cover super-scribed "TECHNICAL PROPOSAL".

ii. Commercial Bid, as directed kept in a sealed cover super-scribed "COMMERCIAL BID & EARNEST MONEY DEPOSIT".

Technical Proposal:

i. Bid Covering Letter as per the Performa given neatly typed and duly signed by the authorized signatory on the Bidder's letter head.

ii. The Technical Proposal should be submitted in bound form and all pages continuously and serially numbered in one lot as one document. Brochures/leaflets etc. should be submitted in the bound document and not in a loose form. Bidders must ensure that all the documents are sealed and signed by authorized signatory.

iii. Technical Bid as given, neatly typed on the letter head of the Bidder, duly filled in, signed and complete in all respects including annexure for detailed specifications of equipment etc. as directed. A soft copy (Word/Excel) of the bid should also be submitted on a CD in the same envelope along with the Hard Copy of the Technical Offer. The bids shall inter alia include detailed technical specifications of all the equipment/components in brochure or written form. These brochures shall be used for technical evaluation of the bids and in their absence the bids may not be evaluated.

iv. Manufacturer's / Developer's Authorization Certificate in specific reference to this Request for Proposal as given in

v. Exact Bill of Material in the format given as the case may be post. The University reserves its right to cross verify whether the offered components meet the desired specifications.

vi. The Technical Bid submitted in response to this Request for Proposal Document along with the supporting material, will become the property of the University.

Commercial Bid& Earnest Money Deposit:

i. Commercial bid proposal for the fine-tuned Technical Specifications neatly typed on the letter head of the Bidder, duly filled in and signed by the authorized signatory in Prescribed Quotation Performa given.

ii. The details of Rate Schedule for all the goods and services under all the components of this Request for Proposal for which the Bidder is intending to quote, the rates in these schedules shall be applicable in case the quantities of a particular order vary from those mentioned in relevant Technical Specifications.

iii. Earnest Money (bid security) according to the following details should be submitted along with the Request for Proposal by way of

a. A Demand Draft in favour of F.O. Himachal Pradesh University payable at Shimla.

It should be denominated in INDIAN RUPEES only. Bids without requisite Earnest Money shall be summarily rejected.

S No	Bidding Schedule	Earnest Money Deposit
1	A, B,C	`400,000/- Rs Four Lakh Only

ii. Unsuccessful Bidders' bid security will be returned as promptly as possible but not later than 30 days after the expiration of the period of bid validity prescribed by the

University.

iii. The successful Bidder's bid security will be discharged upon the Bidder accepting the purchase order and furnishing the Performance Guarantee.

iv. The bid security may be forfeited:

a. if a Bidder withdraws its bid during the period of bid validity;

Or

b. if a Bidder makes any statement or encloses any form which turns out to be false, incorrect and/ or misleading at any time and/ or conceals or suppresses material information;

Or

c. in case of the successful Bidder, if the Bidder fails to sign the agreement or to furnish performance guarantee.

COSTS INCURRED WITH BIDDING

The Bidder shall bear all costs associated with the preparation and submission of its Bid, including cost of presentation for the purposes of clarification of the Bid, if so desired by the University and the University will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding Process.

AMENDMENT IN REQUEST FOR PROPOSAL DOCUMENT

At any time upto the last date of receipt of Bids, the University may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Request for Proposal Document by an amendment.

The amendment will be notified in writing by email to all prospective Bidders who have received the Invitation of Request for Proposal Document and the same will be binding on them. It will also be uploaded to the University's website.

In order to afford prospective Bidders reasonable time to take the amendment into account in preparing their Bids, the University may, at its discretion, extend the last date for the receipt of Bids.

LANGUAGE OF BIDS

The Bids prepared by the Bidder and all correspondence and documents relating to the Bids exchanged by the Bidder and the University, shall be written in the English Language, provided that any printed literature furnished by the Bidder may be written in another language so long as it is accompanied by an English translation in which case, for purposes of interpretation of the Bid, the English translation shall govern.

BID CURRENCY

The Prices in the bid document shall be denominated in INDIAN NATIONAL RUPEES only.

VALIDITY

Bids shall remain valid for 180 days from the last date of submission. The Bidder(s) may be required to give consent for the extension of the period of validity of the bid beyond initial 180 days, if so desired by the University in writing. Refusal to grant such consent would result in rejection of bid without forfeiture of the EMD. However, any extension of validity of bids will not entitle the Bidder to revise/modify the bid. The decision of the University in this regard will be final, conclusive and binding on the Bidder.

MODIFICATIONS & WITHDRAWAL

The bid submitted may be withdrawn or resubmitted before the expiry of the last date of submission by making a request in writing to the Registrar of the University to this effect. No Bidder shall be allowed to withdraw the bid after the deadline for submission of bids.

GENERAL CONDITIONS

Minimum validity of the Proposal must be 180 days from the date of its opening.

The University reserves the right, not an obligation, to carry out the capability assessment of the Bidder(s) and pre dispatch inspections at the cost of the Bidder. This right inter alia includes seeking technical demonstrations, presentations and live site visits.

The University reserves its absolute right to seek any clarifications from the respective Bidder(s).

The University will neither provide nor shall pay any charges for boarding, lodging and transportation facilities for the Bidder(s) or their Representative.

The products/services offered should strictly conform to the specifications given in the product literature. The models proposed/marked for withdrawal from the market or models under quality testing should not be offered.

Equipment offered should be capable of being fully integrated with the existing network of the University immediately on installation.

The Bidder(s) are required not to impose their own terms and conditions to the bid and if submitted, it will not be considered as forming part of their bids. The decision of the University shall be final, conclusive and binding on the Bidder(s).

It is implicit that the Bidder has guaranteed that all the equipment supplied are original & new including all its components and as per the technical specifications. All the hardware and software supplied is licensed and legally obtained in the name of the University.

The University will not issue any service tax exemption certificate. The Bidders are advised to take care of this component in their commercial offers.

PURCHASER'S RIGHT TO REJECT ANY/ALL BIDS

The University reserves the right to accept or reject any bid partially or fully or annul the bidding process and reject all bids at any time prior to award of contract without assigning any reason, thereby incurring no liability to the affected Bidder(s). The University is under no obligation to inform the affected Bidder(s) of the ground for its action.

The University reserves the right to accept or reject any technology proposed by the Bidder(s).

The University reserves the right to re-issue the Request for Proposal or any part thereof without assigning any reason whatsoever, at the sole discretion of the University.

The University reserves the right to issue Purchase Order in phases or to alter the quantities specified in the offer. The University also reserves the right to delete one or more items from the list of items specified in offer.

Any decision of the University in this regard shall be final, conclusive and binding on the Bidder(s).

BID REJECTION CRITERIA

The bid(s) will be rejected in case of any one or more of the following conditions:

Bids which are not substantially responsive to the Request for Proposal Document.

Bids not made in compliance with the procedure mentioned in this document or not substantively responsive.

Failure on part of the Bidder to provide appropriate information as required in the bid proposal or any additional information as requested by the University, including any supporting document.

Incomplete or conditional bids or bids that do not fulfil all or any of the conditions as specified in this document.

Bids without earnest money deposit.

The submission of more than one bid under different names by one Bidder. If the same is found at any stage, all the bids by that bidder will be rejected.

Material inconsistencies in the information submitted.

Misrepresentations in the bid proposal or no supporting documentation.

Bid proposal received after the last date and time specified in this document.

Bids found in unsealed cover, unsigned bids, bids signed by unauthorized person a unsigned corrections in the bids.

Bids containing erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be authenticated by the person(s) signing the bid.

The Technical Bids of all the Bidders who meet the eligibility criteria shall be evaluated further for compliance of specifications and other such parameters as may be needed. The decision of the University in this matter shall be final conclusive and binding.

The Commercial Bids of all the technically qualified Bidders shall be subjected to financial comparison.

BID EVALUATION PROCESS FOR REQUIREMENTS

Bid evaluation process will be as follows:

The prospective Bidder must comply with general qualifications mentioned as the case may be. In case the Bidder does not fulfil the eligibility criteria, their bids will be rejected and shall not be considered for further evaluation.

The Bidder(s) will be evaluated on **QCBS (Quality cum Cost Basis Selection) System as given.** There will be 70% weightage for Technical Bid and 30% for Commercial Bid.

A maximum of 100 marks will be allocated for the Technical Bid. These marks will be awarded based on the compliances of the functional specifications asked for in this document as per following details: The Bidders scoring less than 70 marks (cut-off score) out of 100 marks in the technical evaluation shall not be shortlisted for next stage of Commercial Bid evaluation process.

In case, less than two participating Bidders qualify on technical criteria and reach or exceed the cut-off score of 70, then the university at its sole discretion, may qualify maximum three (total) Bidders on the basis of the top three scores (but not less than 60 marks).

The University may, at its sole discretion, decide to seek more information from the Bidders in order to normalize the bids. However, the Bidders will be notified separately, if such normalization exercise as part of the technical evaluation is carried out.

The Bidders who are shortlisted based upon technical criteria may be asked, if necessary, to make a presentation on their solution at the University, at their own cost.

The individual technical scores of the technically qualified Bidders, thereafter, will be normalized as per the formula below:

$$T_n = \left(\frac{T_b}{T_{max}}\right) \times \frac{70}{100}$$

where:

T_n = Normalized technical score for the Bidder under consideration

T_b = Absolute technical score for the Bidder under consideration
T_{max} = Maximum absolute technical score obtained by any Bidder

Financial Bids of those who have technically qualified only shall be opened for further evaluation.

The Commercial Offer shall be the sum total of the Gross Price and the AMC charges for two years.

The commercial scores will be calculated as per formula given below:

$$F_n = \left(\frac{F_{min}}{F_b}\right) \times \frac{30}{100}$$

where:

F_n = Normalized financial percentage for the Bidder under consideration
F_b = Evaluated percentage cost of the Bidder under consideration
F_{min} = Minimum evaluated percentage cost of any Bidder

The overall score will be calculated as per the formula given below:

$$B_n = T_n + F_n$$

where:

B_n = Overall score of the Bidder under consideration
T_n = Normalized technical score of the Bidder under consideration
F_n = Normalized financial score of the Bidder under consideration

Final Selection of Bidder will be done based on added individual score achieved by the Bidder in techno-commercial evaluation. The Bidder getting the highest score (B_n) shall be selected for award of work.

RESPONSIBILITIES OF THE BIDDER(S)

The Bidder(s) shall supply, the equipment as FOR destination i.e. Himachal Pradesh University, Shimla, H.P. 171005 and the rates must include all the charges e.g. packing, forwarding, insurance, freight, commissioning, demonstration etc if any.

They shall be required to erect, install, configure and commission the network and the data centre and shall furnish necessary certifications.

They shall install, implement, configure and commission the software as per the requirements specified in this document.

The Bidder(s) shall maintain the infrastructure provided by the University for the Implementation and operation of the project and allied services.

RESPONSIBILITIES OF THE UNIVERSITY

The University shall provide space to install the equipments and components etc. On day to day basis the officials of the University shall help the engineers deputed by the Bidder for the job in their capacity.

SCHEDULE OF PAYMENT WRT SCHEDULE A

No payment will be made in advance for any supplies under this invitation for bid.

The Bidder is responsible for all the relevant payment for DIT Data Centre charges and the university in no way will be responsible for any such payment to DIT for hosting charges and use of space etc. For this the bidder is advised to take necessary discussion with DIT regarding their relevant charges whatsoever be there. The bidder is requested to incorporate all such expenditure and charges while quoting.

70% of the payment of (Hardware, Software and licences Fee) due shall be released by the university after successful delivery of equipment / software and raising of relevant invoices thereof.

20% of the payment of (Hardware, Software and licences Fee) due shall be released by the University after successful Installation of Hardware and Software etc. within one month from the date of raising of relevant invoices thereof.

Remaining 10% of the payment (Hardware, Software and licences Fee) due shall be released by the University after performance certificate has been issued by the user within one month.

20% payment of the Application Software cost will be made only after the successful implementation of Examination system modules in totality and after performance certificate has been issued by the user within one month.

10% payment of the Application Software cost will be made only after the successful implementation of Finance Office module in totality and after performance certificate has been issued by the user within one month.

10% payment of the Application Software cost will be made only after the successful implementation of Admission Process (through Entrance Test and Merit based) in totality and after performance certificate has been issued by the user within one month.

10% payment of the Application Software cost will be made only after the successful implementation of all modules in totality and data migration after performance certificate has been issued by the respective users within one month.

Remaining 50% payment will be divided in the remaining period under warranty and will be released quarterly on pro rata basis.

The Support Charges (A.M.C.) for the supplies for the period after three year warranty will be paid at the end of each annual quarter on post-paid basis.

SCHEDULE OF PAYMENT WRT SCHEDULE B

No payment will be made in advance for any supplies under this invitation for bid.

The Bidder is responsible for all the relevant payment for Data Centre charges and the university in no way will be responsible for any such payment for hosting charges and use of space etc. The bidder is requested to incorporate all such expenditure and charges while quoting.

The usage and hosting charges etc. will be paid as per the given rates on a quarterly basis.

20% payment of the Application Software cost will be made only after the successful implementation of Examination system modules in totality and after performance certificate has been issued by the user within one month.

10% payment of the Application Software cost will be made only after the successful implementation of Finance Office module in totality and after performance certificate has been issued by the user within one month.

10% payment of the Application Software cost will be made only after the successful implementation of Admission Process (through Entrance Test and Merit based) in totality and after performance certificate has been issued by the user within one month.

10% payment of the Application Software cost will be made only after the successful implementation of all modules in totality and data migration after performance certificate has been issued by the respective users within one month.

Remaining 50% payment will be divided in the remaining period under warranty and will be released quarterly on pro rata basis.

The Support Charges (A.M.C.) for the supplies for the period after three year warranty will be paid at the end of each annual quarter on post-paid basis.

SCHEDULE OF PAYMENT WRT SCHEDULE C

No payment will be made in advance for any supplies under this invitation for bid.

70% of the payment (Hardware, Software and licences Fee) due shall be released by the university after successful delivery of equipment / software and raising of relevant invoices thereof.

Remaining 20% of the payment (Hardware, Software and licences Fee) due shall be released by the University after successful Installation of Hardware and Software etc. within one month from the date of raising of relevant invoices thereof.

Remaining 10% of the payment (Hardware, Software and licences Fee) due shall be released by the University after performance certificate has been issued by the user within one month.

The cost of implementation services, the training, data migration cost etc. will be paid based on the completion of the key milestones of the project and acceptance of the deliverables associated with the milestones, by the University.

The implementation service also includes three months of adoption support after go live declaration.

At the completion of Project Preparation phase and implementation of CBCS system in Examination system, 10% of the cost of implementation services will be paid within one month upon raising of relevant invoices thereof.

35% of the cost of implementation services will be paid after the completion of the Blueprint phase within one month upon raising of relevant invoices thereof.

35% of the cost of implementation services will be paid at the successful completion of the Realization phase within one month upon raising of relevant invoices thereof.

Remaining 15% of the cost of implementation services will be paid after one annual quarter of successful operation.

The ATC for the COTS solution for the period after go-live will be paid at the end of each annual quarter on post-paid basis.

TIME SCHEDULE

The project should be completed within twelve months from the date of placing the supply order and the University's decision in this regard will be final and binding. **THE BIDDER HAS A TOPMOST PRIORITY OF IMPLEMENTING THE EXAMINATION SYSTEM IN CBCS FOR GRADUATION AT THE FIRST INSTANCE WITHIN A SHORTEST PERIOD AND ANY PAYMENT WILL BE RELEASED ONLY AFTER IMPLEMENTATION OF CBCS SYSTEM.** The supply shall actually be deemed to have been complete on the actual date of installation/implementation and successful demonstration to the duly constituted committee of the University.

KEY ACTIVITIES AND DATES

S.No.	Key Activities	Date
1	Request For Proposal (RFP) available on website (Cost of RFP is Rs.10,000)	07-09-2015
2	Last Date for Submission of Written Questions by bidders	14-09-2015
3	HPU Response to bidder Questions latest by	21-09-2015
4	Last Date / Time for submission of bids	05-10-2015

5	Technical Bid opening Date/Time	07-10-2015
6	Technical Bid Evaluation	13-10-2015
7	Commercial Bid Opening of Technically qualified bids	16-10-2015

The detailed schedule will be specified by the University at the time of placing supply / work orders after due consultation with the successful Bidder(s).

EARNEST MONEY

Earnest Money as specified should be submitted along with the Proposal in the form of Demand Draft payable to Himachal Pradesh University, Shimla, H.P. duly addressed to Himachal Pradesh University, Shimla, H.P. in specific reference to this RFP.

Proposals without Earnest Money shall be summarily rejected.

The successful Bidder(s) will be required to meet the schedule of job given by the University and mutually agreed to by them and would abide by the terms and conditions of the contract, failing which the University reserves the right to forfeit the full or part of the said deposit, as the case may be.

If the Bidder refuses to undertake the allotted work or delays the work deliberately and unnecessarily, their allotment order will be cancelled, Firm will be black Listed and Earnest Money shall be forfeited. In such a case decision of the University will be final and binding.

RATES

The rates quoted shall remain firm throughout the period of contract and this contract will remain valid upto the date of completion of the job by the Bidder(s) and shall not be subject to any upward modification whatsoever.

WARRANTY

All the goods and services quoted in response to this Request for Proposal shall have an onsite warranty. The scope of onsite warranty shall be covered for 3 years from the date of commissioning and 2 years for the AMC for subsequent years (i.e. 4^{th} and 5^{th} year). Commercial Bid evaluation will be done including AMC charges for a total of 5 years taken together.

The equipment covered shall be put to bonafide use of Himachal Pradesh University, Shimla, H.P. and shall not be shifted outside. In case of breach in this case, the obligations under warranty shall stand void.

PENALTIES

In case of delay in execution of works or delivery of goods & services penalties at the following rates shall be imposed on the total amount (as per relevant rate schedule) of delayed goods/services:

1% for delay of the first two months
2% per month for subsequent delays
Maximum delay of six months is tolerable, beyond which the order may be cancelled.

In case of breach of service levels penalties as per agreed SLAs shall also be imposed.

The decision of the University in this regard shall be final, conclusive and binding.

TERMINATION OF CONTRACT

The University reserves a right to cancel / terminate the Contract, in whole or in part, at any time of its convenience during the contract period by serving prior written notice to the Bidder. The notice of termination shall specify that termination is for the University's convenience, the extent to which performance of work under the Contract is terminated and the date upon which such termination becomes effective.

This contract lawfully stands terminated on completion of all services by the Bidder or on completion of Term of Contract whichever is later. The University reserves the right to cancel the Contract placed on the Bidder after giving 30 days' notice in writing and recovering the expenditure incurred by the University in the following circumstances:

i. In case the Bidder does not perform within the prescribed time limits.
ii. Not adhering and confirming to the quality of work, technical specifications and for the non-performance of the services as per the terms and conditions mutually agreed upon.
iii. The Bidder commits a breach of any of the terms and conditions of the contract.
iv. The Bidder goes in for liquidation voluntarily or otherwise.
v. The University reserves the right to recover any dues paid to the Bidder in case of breach of contract prematurely.
vi. The University shall pay the Bidder any dues till the date of termination, as per terms of this Agreement.

TAXES AND DUTIES

The Bidder shall be solely responsible for the payment of all taxes including VAT, duties, license fees, octroi etc. incurred until completion of the project.

PERFORMANCE GUARANTEE

The successful Bidder(s) shall furnish a security in the form of bank guarantee @ 5% of the total value of the order to the Bidder, valid for 3 years from the date of order, which shall be discharged thereafter.

INSURANCE

The University will not pay for any insurance charges against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery etc. The insurance shall be purchased by the Bidder for an amount equal to the exact value of the Goods up to the installation at site on all risks basis, including war Risks and strike clauses etc.

INDEMNITY

The Bidder(s) shall indemnify the University against all third party claims of infringement of Intellectual Property Right, including Patent, trademark, copyright, trade secret or industrial design rights arising from use of the Goods, or any part thereof in India.

The Bidder(s) shall, at their own expense, defend and indemnify the University against all third party claims or infringement of intellectual Property Right, including Patent, trademark, copyright, trade secret or industrial design rights arising from use of the products or any part thereof in India or abroad.

The Bidder(s) shall expeditiously extinguish any such claims and shall have full rights to defend itself there from. If the University is required to pay compensation to a third party resulting from such infringement, the Bidder(s) shall be fully responsible therefore, including all expenses and court and legal fees.

The University will give notice to the Bidder of any such claim without delay, provide reasonable assistance to the Supplier in disposing of the claim, and shall at no time admit to any liability for or express any intent to settle the claim.

CONFIDENTIALITY

The Bidder shall not, and without the University's prior written consent, disclose the contract or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the University in connection therewith to any person other than a person employed by the Bidder in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.

The Bidder shall not without the University's prior written consent, make use of any document or information.

Any document other than the contract itself shall remain the property of the University and shall be returned (in all copies) to the University on completion of the Bidder's performance under the contract if so required by the University.

CONFLICT OF INTEREST

Absence of, actual or potential conflict of interest on the part of the Bidder due to prior, current, or proposed contracts, engagements, or affiliations with HPU needs to be meticulously ensured. Additionally, they shall proactively disclose and address any and all potential elements, which would adversely impact their ability to complete the requirements as given in the RFP.

TRAININGS

The Bidder shall be responsible for training the University personnel in the areas of implementation, operations, management, error handling, troubleshooting, system administration and any other related areas. This training can be arranged at the premises of the Bidder or at the University. At least ten employees need to be trained by the Bidder who shall be identified by the University and shall comprise of people having different levels of qualifications and responsibilities. The final training schedule shall be decided according to a mutually agreed time table before the work order is finally placed.

LIMITATION OF LIABILITY

Notwithstanding anything to the contrary contained in the contract, the Bidder's aggregate liability arising out of or in connection with the contract, whether based on contract, tort, statutory warranty or otherwise, be limited to the amount actually paid by the University to the Bidder in respect of the services that are subject matter of a claim, subject to a maximum of 100% of the contract value. The Bidder shall not be liable for any special, indirect, incidental or consequential damages of any kind including but not limited to loss of use, data, profit, income, business, anticipated savings, reputation, and more generally, any loss of an economic or financial nature, whether these may be deemed as consequential or arising directly and naturally from the incident giving rise to the claim.

FORCE MAJEURE DURING THE PENDENCY

During the pendency of the contract if the performance in whole or part thereof by either party is prevented/delayed by causes arising due to any war, hostilities, civil commotion, act of public enemy, sabotage, fire, floods, explosion, epidemics, non-availability of raw material, and other consumables, or any other causes including breakdown of equipment beyond their reasonable control neither of the two parties shall be made liable for loss or damage due to delay or failure to perform the contract during the pendency of forced conditions provided that the happenings are notified in writing within 7 days from the date of occurrence. The work shall be resumed under the contract as soon as possible after the restoration of normalcy.

OTHER CONDITIONS

If some latest technology or equivalent is introduced the Bidder is duty bound to offer their proposal on mutually agreed rates on similar terms and conditions during the pendency of the agreement/contract.

ARBITRATION

All disputes, differences, claims and demands arising under or pursuant to or touching the contract shall be referred to the sole arbitrator to be appointed by the Vice Chancellor, Himachal Pradesh University, Shimla, H.P. The award of the sole arbitrator shall be final and binding on both the parties under the provisions of the Arbitration and Conciliation Act, 1966 or by statutory modification/re-enactment thereof for the time being in force. Such arbitration shall be held at Shimla.

APPLICABLE LAWS &JURISDICTION OF COURTS

In all matters and disputes arising hereunder, shall be governed in accordance with the Laws of India for the time being enforced and will be subject to the exclusive jurisdiction of Courts having jurisdiction in Shimla, H.P.

6

BID PROPOSAL PROFORMA

TECHNICAL PROPOSAL FORMAT
FORM TECH-1

LETTER OF TECHNICAL PROPOSAL SUBMISSION

Location : **Date :**

To:

Project Coordinator,
Project Management Unit
Computer Centre
Himachal Pradesh University,
Summer Hill, Shimla 171005

Dear Sirs:

We, the undersigned, offer for **Appointment of System Integrator for Implementation of Web-Enabled University Management System** in accordance with your Request for Proposal Tender No. **……** dated **……** and our Proposal. We are hereby submitting our Proposal, which includes this Prequalification Proposal, Technical Proposal, and a Financial Proposal sealed under a separate envelope and requisite EMD and proposal processing fees.
We are submitting our Proposal in association with: [Insert a list with full name and address of each member of the consortium]
(i)

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.
We understand you are not bound to accept any Proposal you receive.
We remain,

Yours sincerely,
Authorized Signature [In full and initials]:
Name and Title of Signatory:
Name of Firm:

Address:

FORM TECH-2

BIDDER'S ORGANIZATION AND EXPERIENCE

A – Bidder's Organization

[Provide here a brief description of the background and organization of your firm/entity and each associate for this Assignment/Job. The brief description should include ownership details, date and place of incorporation of the firm, objectives of the firm etc. Also if the Bidder has formed a consortium, details of each of the member of the consortium, name of lead members etc shall be provided.]

B - Bidder's Experience

[Using the format below, provide information on each assignment/job for which your firm, and each partner in the case of consortium, was legally contracted either individually as a corporate entity or as one of the major partners within an association, for carrying out assignment/job similar to the ones requested under this assignment/job. In case of consortium, association of Service Provider, the Bidder must furnish the following information for each of the consortium member separately.]

Information sought	**Information**
1.1	Firm's / Client's name
1.2	Assignment/Job name
1.3	Description of Project
1.4	Approx. value of the contract (in Rupees)
1.5	Country
1.6	Location within country
1.7	Duration of Assignment/Job (months)
1.8	Name of Employer
1.9	Address
1.10	Total No of staff-months of the Assignment/Job
1.11	Approx. value of the Assignment/job provided by your firm under the contract (in Rupees)
1.12	Start date (month/year)
1.13	Completion date (month/year)
1.14	Name of senior professional staff of your firm involved and functions performed
1.15	Description of actual Assignment/job provided by your staff within the Assignment/job

Note: Please provide documentary evidence from the client i.e. copy of work order, contract for each of above mentioned assignment. The experience shall not be considered for evaluation if such requisite support documents are not provided with the proposal.

Signature of witness
Dated

Place

Signature of the Bidder
Dated

Place

FORM TECH-3

COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE AND ON COUNTERPART STAFF AND FACILITIES TO BE PROVIDED

A - On the Terms of Reference

[Suggest and justify here any modifications or improvement to the Terms of Reference you are proposing to improve performance in carrying out the Assignment/job (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your Proposal.]

B - On Inputs and Facilities to be provided

[Comment here on Inputs and facilities to be provided including: administrative support, office space, Domestic transportation, equipment, data, etc.]

FORM TECH-4

DESCRIPTION OF APPROACH, METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT/JOB

[Technical approach, methodology and work plan are key components of the Technical Proposal. The Bidders are suggested to present their Technical Proposal divided into the following three chapters:
a) Technical Approach and Methodology,
b) Work Plan, and
c) Organization and Staffing,

1. Technical Approach and Methodology-In this chapter the Bidder should explain their understanding of the objectives of the Assignment/Job, approach to the Assignment/Job, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. The Bidder should highlight the problems being addressed and their importance, and explain the technical approach that would be adopted to address them. The Bidder should also explain the methodologies it proposes to adopt and highlight the compatibility of those methodologies with the proposed approach. The approach should at the minimum cover content sourcing plan, quality assurance plan, proposed solution & technical architecture (including proposed hardware), reporting formats, proposed deployment architecture etc.

2. Work Plan-The Bidder should propose and justify the main activities of the Assignment/Job, their content and duration, phasing and interrelations, milestones (including interim approvals by the Employer), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the Terms of Reference (TOR) and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here.

Organization and Staffing-The Bidder should propose and justify the structure and composition of the team. The Bidder should list the main disciplines of the Assignment/Job, the key expert responsible, and proposed technical and support staff.

Signature of witness	Signature of the Bidder
Dated	Dated
Place	Place

FORM TECH - 5

TEAM COMPOSITION AND TASK ASSIGNMENT/JOBS

Professional Staff

Sno.	Name of Staff	Name of Firm	Area of Expertise	Position/Task Assigned for this Job

Signature of witness
Dated

Place

Signature of the Bidder
Dated

Place

CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

1 Proposed Position:
[For each position of key professional separate form Tech-6 will be prepared]:
2 Name of Firm:
[Insert name of firm proposing the staff]:
3 Name of Staff
[Insert full name]:
4 Date of Birth
5 Nationality
6 Education
[Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment]:
7 Membership of Professional Associations:
8 Other Training:
9 Languages
[For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]:
10 Employment Record:
[Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, positions held.]:
From [Year]: To [Year]:
Employer:
Positions held:
11 Detailed Tasks Assigned

[List all tasks to be performed under this Assignment/Job]

12 Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Date:

Place:

[Signature of staff member or
authorized representative of the staff]

[Full name of authorized representative]:

FORM TECH - 7

WORK SCHEDULE (During design and development phase)

Sno.	Activity	Duration 1	2	3	4	5	6	7	8	9	10	11	12	Total Months

Note:

1. Indicate all main activities of the Assignment/Job, including delivery of reports (e.g.: inception, interim, draft and final reports), and other benchmarks such as Employer approvals. For phased Assignment/Jobs indicate activities, delivery of reports, and benchmarks separately for each phase.

2. Duration of activities shall be indicated in the form of a bar chart.

Signature of witness
Dated

Place

Signature of the Bidder
Dated

Place

FORM TECH - 8

Training SCHEDULE

Sno.	Activity	Duration 1	2	3	4	5	6	7	8	9	10	11	12	Total Months

Note:

Duration of activities shall be indicated in the form of a bar chart.

Signature of witness
Dated

Place

Signature of the Bidder
Dated

Place

FORM TECH-9

Data Migration Strategy

The Bidder should propose data migration strategy with clear responsibility.

Signature of witness
Dated

Place

Signature of the Bidder
Dated

Place

Maintenance & Upgrade Plan Strategy

The Bidder should out-line the Maintenance & Upgrade Plan with respect to:

On-site Post Implementation Support Strategy

Proposed model for expansion of services beyond the initial requirements described in the RFP
Help Desk operation

Signature of witness	Signature of the Bidder
Dated	Dated
Place	Place

FORM FIN-1

FINANCIAL PROPOSAL SUBMISSION FORM
Location : Date :

To:

Project Coordinator,
Project Management Unit
Computer Centre
Himachal Pradesh University,
Summer Hill, Shimla 171005

Dear Sirs:

We, the undersigned, offer for Appointment of System Integrator for Implementation of **Web Enabled University Management System** in accordance with your Request for Proposal Tender No. …… dated …….. and our Technical Proposal. Our attached Financial Proposal is for the sum of [Insert amount(s) in words and figures]. This amount is inclusive of the Domestic taxes. We hereby confirm that the financial Proposal is unconditional and we acknowledge that any condition attached to financial Proposal shall result in rejection of our financial proposal.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, if any, up to expiration of the validity period of the Proposal.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]:
Name and Title of Signatory:
Name of Firm:

Address:

Financial Bid (Option -1) (Perpetual License Model)

S. No.	Particulars	Amount (in Rupees)	Amount (in Words)
1	Application License Cost		
2	Implementation Cost		
3	One + Four Years (Warranty +AMC) Cost		

Financial Bid (Option -2) (SaaS Model)

S. No.	Particulars	Amount (in Rupees)	Amount (in Words)
1	Application License Cost		
2	Implementation Cost		
3	One + Four Years (Warranty +AMC) Managing Cost		

Financial Bid (Option -3)

S. No.	Particulars	Amount (in Rupees)	Amount (in Words)
1	Application License Cost		
2	Implementation Cost		

3	Data Centre Set Up Cost		
4	One + Four Years Application & Data Center Managing Cost		

Note: The bidders are required to have adequate redundancy while finalizing and sizing their hardware requirements such as Web Servers(2), Database Servers(2) and Application Servers(2) etc. in order to have maximum desired uptime. It is the responsibility of the bidder that all requirements should be planned and confirmed in such a manner so that no problem will be encountered at a later stage.

Any Other Costs

Sr. No.	Item	Unit Price (Rs)
1	Customization Charges Per Man Month (for the efforts in Change Request Process, GAP between University requirement and existing Product or in additional functionalities)	
2	Handholding Per Man Month (Applicable after free handholding for two months with one Expert)	
3	Training Costs Per Man Month (applicable after free training for one month with one Certified Trainer)	
4	System Software-License Fee payable for required licences	
5	Onsite Manpower Charges per Person per annum for helpdesk support	
6	Hardware (servers)	
8	Data Migration	

The Total Cost is Rs _____/- (Rupees _____only). The above cost includes all applicable taxes and duties to be paid under the statute at the prevailing rates for the purpose of this contract

Signature of witness
Dated
Place

Signature of the Bidder
Name
Designation
Name of Firm
Address

Dated

BREAKDOWN OF COSTS- TOTAL[1]

Sno.	Type of Cost	Phase/Deliverable	Total (Inclusive of Taxes)
Item1	Fixed Cost[2] (One time fee)	Design, Customization, Testing and Implementation (Including Manpower, Software licenses ,training etc.)	
Item2	Operating expense	Maintenance for 36 months[3] after completion of one year from the date of successful implementation (Including AMC, ,Software licenses renewals etc.)	
Total			

The Total Cost is Rs _____/- (Rupees_____only).

Signature of witness
Dated

Signature of the Bidder
Dated

Place

Place

In case of consortium, break-up of cost for both the Bidders may be indicated separately in the same table
2 This will be one time fee
3 This excludes the time period for customization and UAT (already covered in fixed cost)

FORM FIN-4

BREAKDOWN OF COSTS – HARDWARE, SOFTWARE & CUSTOMIZATION[4,5]
(To be submitted in a separate cover) **HARDWARE COST**

Item	**Brief Description**	**Unit Price Amount in Rupees**	Tax	**Quantity**	**Total Price (6)=((3)+(4))*(5)**
(1)	(2)	(3)	(4)	(5)	(6)
	Main Live System				
	Total				
	Off Site Back-Up System.				
	Total				

Data Centre Cost (Please give Complete list of Data Centre BOM components, Civil Work etc. along with configuration, Rates, Tax Applicable). Also require to provide details of DR site provision.

Item	**Brief Description**	**Configuration**	**Unit Price Amount in Rupees**	Tax	**Quantity**	**Total Price (6)=((3)+(4))*(5)**
(1)	(2)		(3)	(4)	(5)	(6)
1	Data Centre Setup Cost					
2	Area required (Will Provide by University) for DC Setup					
3						
	Hard Ware Components					
	Server1					
	Server 2					
	Server 3					
	Server 4					
	Server 5					
	Server 6					
4	Fire Wall					

[4]Any license / maintenance Cost (AMC etc.) for Hardware and Software during the maintenance period shall be borne by the Service Provider and the cost of same should be built into the operating cost in Form FIN 3

[5] In case of consortium, break-up of cost for both the Bidders may be indicated separately in the same table

ERP SOFTWARE / LICENSE COST

Item	**ERP modules**	**Licensing Metric**	**Unit Price Amount in Rupees**	Tax	**Quantity**	**Total Price (7)=((4)+(5))*(6)**
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total					

Licensing Metric :- Full Usage Named, User with Read, Write, Edit, and Delete access
Quantities :- are already mentioned in Section 1.6 (Table2)

ERP CUSTOMIZATION COST (Installation, Implementation, Configuration, Customization, Testing, Documentation, Data Migration, Go Live, Handholding/Helpdesk and BeSpoke development if any**)**

Item	**Brief Description**	**Unit Price Amount in Rupees**	Tax	**Quantity**	**Total Price (6)=((3)+(4))*(5)**
(1)	(2)	(3)	(4)	(5)	(6)
	Total				

Detail of Manpower deployment Plan separately for Option A, B & C.

Item	**Brief Description**	**Unit Price Amount in Rupees**	Tax	**Quantity**	**Total Price (6)=((3)+(4))*(5)**
(1)	(2)	(3)	(4)	(5)	(6)
	Total				

MANPOWER COST (Maintenance Phases)

Item	**Brief Description**	**Unit Price Amount in Rupees**	Tax	**Quantity**	**Total Price (6)=((3)+(4))*(5)**
(1)	(2)	(3)	(4)	(5)	(6)
	Total				

Signature of witness
Dated

Place

Signature of the Bidder
Dated

Place

FORM FIN-5

MAN-MONTH RATE (MMR)

The bidder shall provide a Blended Man-Month Rate (MMR) incorporating the different expertise required for any customization related development work. This rate shall be used for computing the value of the Change Order. The MMR shall further be used to arrive at the cost of
The MMR is Rs _____/- (Rupees_____only). The MMR is valid for the entire duration of the Service Contract.

Signature of witness
Dated

Place

Signature of the Bidder
Dated

Place

Annexure-I

AFFIDAVIT/UNDERTAKING

1. Affidavit/undertaking of not having been block-listed by any Govt./Semi Govt. Organization at any stage and/or debarred.

2. The undersigned has never been convicted by any court of law for any of the offences under any Indian/foreign law.

Signed by an Authorized Officer of the Firm	
Title of Officer	
Name of Firm	
Date	

*To be executed on a non-judicial stamp paper

Annexure-II

H.P.University, Shimla

Affidavit

It is certified that I have submitted all correct documents & statements. In case any statement or document is found false at any stages the University may take action as it deemed fit even that may lead to disqualification at any stage.

Contractor/Firm

Annexure-III

I have gone through Eligibility Criteria, Terms & Conditions for "Developing and implementing ERP Solution in University. I hereby submit that all terms & conditions mentioned in the said Tender/Document/Forms are acceptable to me.

Contractor/Firm

ANNUAL TURNOVER CERTIFICATE

Name of Applicant :

All individual firms and all partners of a joint venture are required to complete the information in this form. The information supplied shall be the annual turnover of the applicant (or each member of a joint venture), in terms of the amounts billed to clients for each year for Project/work in progress or completed. Applicants should enclose testimonials (certified copies of annual reports/certificates/balance sheets) in supports of their claim.

TURNOVER DATA (Projects/Works Only Ref. Clause __)

SNo.	Financial Year	Turnover

(Applicant/Bidder)

Completion/Implementation Project's Certificate

Sno.	Client/work order detail	Project Detail	Amount	Completion Time

(Applicant/Bidder)

To:

Project Coordinator,
Project Management Unit
Computer Centre
Himachal Pradesh University,
Summer Hill, Shimla 171005

Dear Sir,

Supply, Installation, Implementation, Integration, Configuration, Commissioning and Maintenance of theWeb Enabled University Management System.

1 Terms & Conditions

1.1 I/We, the undersigned Bidder(s), having read and examined in detail the specifications and all bidding documents in respect of this Request for Proposal do hereby propose to provide goods and services as specified in the bidding document.

1.2 I/We, the undersigned Bidder(s) having submitted the qualifying data as required in your Request for Proposal, do hereby bind ourselves to the conditions of your Request for Proposal. In case any further information/documentary proof in this regard before evaluation of our bid is required, I/We agree to furnish the same on demand to your satisfaction.

2 Rates & Validity

2.1 All the rates mentioned in our proposal are in accordance with the terms as specified in bidding documents. All the rates and other terms and conditions of this proposal are valid for a period of 180 days from the date of opening of the bid.

2.2 I/We have studied the Clauses relating to Indian Income Tax Act and hereby declare that if any Income Tax, surcharge on Income Tax and any other Corporate Tax is altered under the law, I/we shall pay the same.

3 Deviations

I/We declare that all the goods and services shall be performed strictly in accordance with the Technical specification, Time Schedule and other terms of the Request for Proposal Document except the deviation as mentioned in the Technical Deviation Proforma. Further, I/We agree that additional conditions, if any, found in the proposal documents, other than those stated in deviation proforma, shall not be given effect to.

4 Bid Pricing

I/We further declare that the rates stated in our proposal are in accordance with your terms and conditions in the bidding document.

5 Earnest Money

I/We have enclosed the earnest money as required in the Request for Proposal Document. In case of default it is liable to be forfeited in accordance with the provisions enumerated therein.

6 Performance Guarantee

I/We shall submit a Bank Guarantee as required in the Request for Proposal Document.

7 Declaration

I/We hereby declare that my/our proposal is made in good faith, without collusion or fraud and the information contained in the proposal is true and correct to the best of my/our knowledge and belief and nothing has been concealed there from.

Thanking you,

Yours faithfully,

(Signatures)

Date:

Place:

Name:

Designation:

Seal

6.1 PROFORMA TECHNICAL BID

S No	Description	Response
1.	Bidder's Proposal Reference No & Date	
2.	Bidder's Name and Address	
3.	Contact Person Designation Telephone Number Fax Number e-mail Address	
4.	Please attach a copy of company incorporation certificate.	**Annexure TB-1**
5.	Please attach list of your offices in India with addresses thereof: a. Offices b. Spare Part Depots c. Service Centres d. Development Centres	**Annexure TB-2**
6.	Please provide details if you have been blacklisted / debarred by the Government of India or their undertakings, any State Governments or their undertakings previously. If no, please enclose an undertaking in this matter	**Annexure TB-3**
7.	Certificates etc. a. If the Bidder is not OEM, Please enclose due authorization certificate from OEM? (if applicable) b. Please enclose a list of similar installations done by you along with their value. Please attach relevant experience certificates also. c. Please enclose a copy of Purchase order of last 3 years d. Please enclose copies of ISO 9001:2008/27000/SSE CMM level3, 5 certificates of Quality Certifications e. Please enclose copies of valid VAT / LST / CST / Service Tax Registration certificates and Copy of PAN Card. f. Please attach copies of audited Balance Sheets and P/L Accounts for last three financial years. g. Is the Bidder or the OEM involved in any Bankruptcy filing for protection from it? If not, please enclose undertakings from the Bidder as well as OEM in this matter.	**Annexure ETA – 1** **Annexure ETA – 2** **Annexure ETA – 3** **Annexure ETA – 4** **Annexure ETA – 5** **Annexure ETA –6**
8.	Please attach printed or typed specification/feature sheets of all the equipment / components / software quoted by You.	

9.		

(Signatures)

Date:

Place:

Name:

Designation:

Seal

6.2 PRFORMA MANUFACTURER'S / DEVELOPER'S AUTHORIZATION

Ref. No_____ Date: _____

To:

The Project Coordinator
Computer Centre
Himachal Pradesh University, Shimla
171 001.

Dear Sir,

Request for Proposal No.HPU/cc-102/15Dated Sept. 07, 2015, for Supply, Installation, Implementation, Integration, Configuration, Commissioning and Maintenance of the Web Enabled University Management System.

We_____ who are established and reputed Manufacturers / Developers of _____ having Factory / Development Centre at _____ do hereby authorize M/s _____[Name and Address of Vendor] to submit a bid and sign the contract with you for the goods Manufactured / Products developed by us against the above Request for Proposal No HPU/IT-01/15. We hereby extend our full Guarantee and Warranty as per the clauses of contract based on the Terms and Conditions of the RFP for the goods and services offered for supply by the above organization in response to your RFP.

Yours faithfully

Name of the Manufacturer / Developer

Authorized Signatory

Note:
This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the bidder in its bid.

6.3 BILL OF MATERIAL CUM COMPLIANCE SHEET FOR HARDWARE

Following is the exhaustive bill of material with makes and part numbers. Further we abide ourselves by the compliances indicated as per the desired specifications.

S No	Description	Make	Part Number if any	Quantity	Compliance (Yes/No)

(Signatures)

Date:

Place:

Name:

Designation:

Seal

7 BILL OF MATERIAL CUM COMPLIANCE SHEET FOR SOFTWARE

Following is the exhaustive bill of material with makes and part numbers. Further we abide ourselves by the compliances indicated as per the desired specifications.

S No	Description Please copy all the functional requirements specified in this RFP	

(Signatures)

Date:

Place:

Name:

Designation:

Seal

8 PROFORMA COMMERCIAL BID

6.8.1 We hereby quote our commercial offer as given below:

S No	Particulars (a)	Gross Base Price (b)	Excise and/or Custom Duty, if applicable + Taxes including VAT as applicable + Octroi and other levies, if Applicable (c)	TOTAL Price to be paid including all taxes, duties and any other levies ((b) + (c))
1.	Schedule A & C including warranty for three years (supply of goods, Licences))			
2.	Schedule A & C(installation services)			
3.	AMC for Schedule A & C for 2 years after the warranty for three years			
4.	Schedule B including support and updates for three years			
5.	Integration of Schedule A, B & C (installation, customization and implementation services)			
6.	AMC for Schedule B for 2 years after the warranty for three years			

6.8.2 The Details of Earnest Money Deposit:

Value	
Demand Draft / Fixed Deposit Receipt Number with Date	
Name and Branch of the Bank	

(Signatures)

Date:

Place:

Name:

Designation: Seal